

FIG. 1

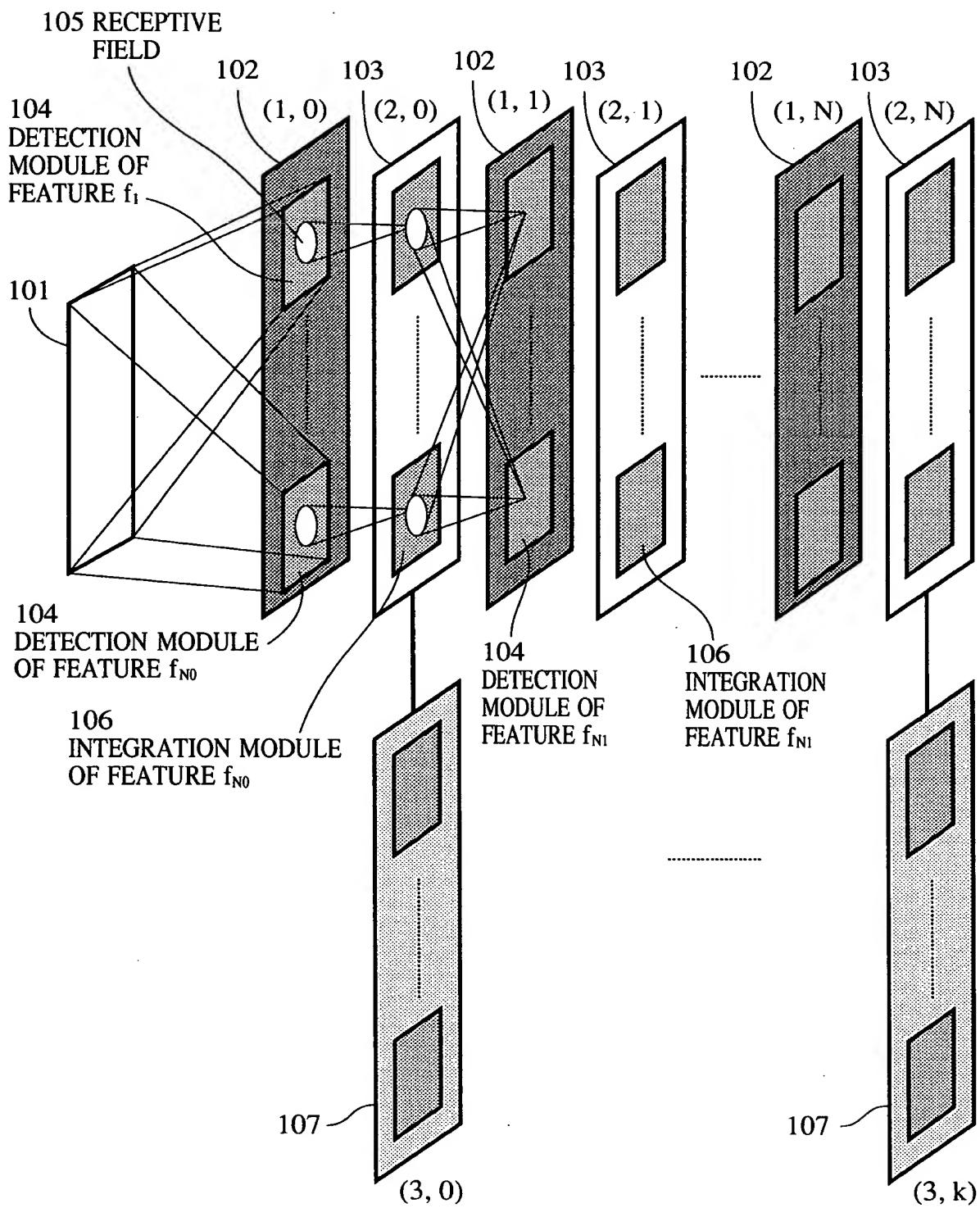


FIG. 2A

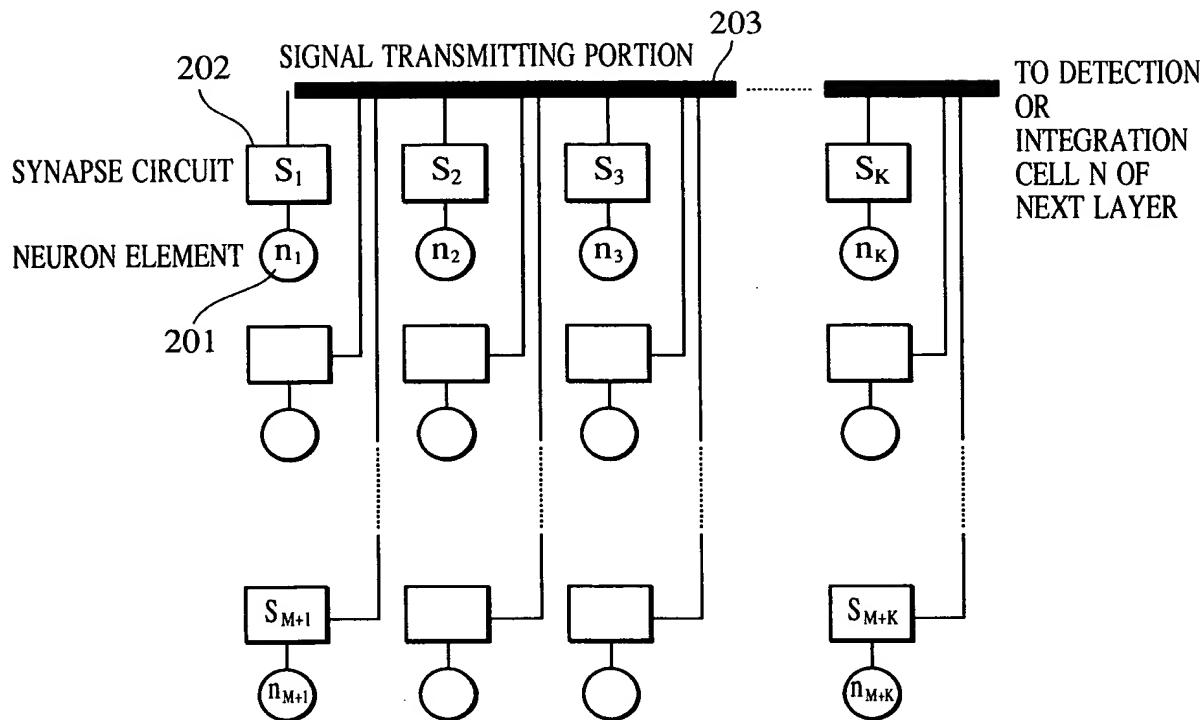


FIG. 2B

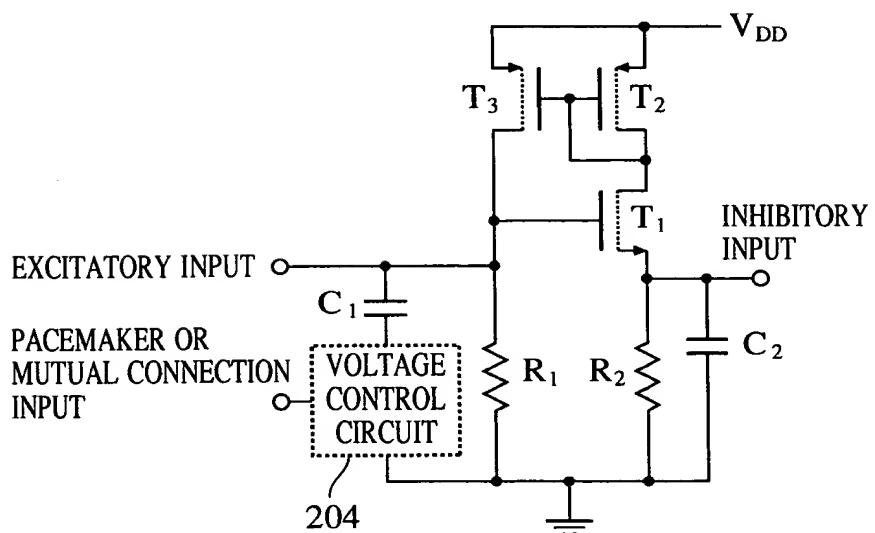


FIG. 2C

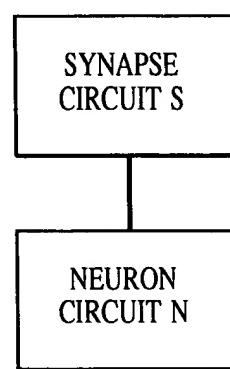


FIG. 3A

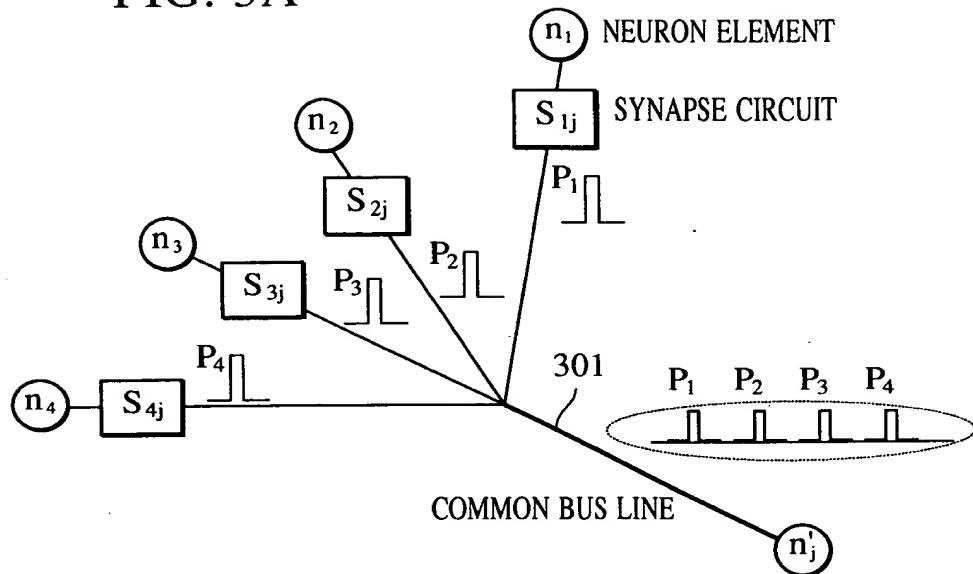


FIG. 3B

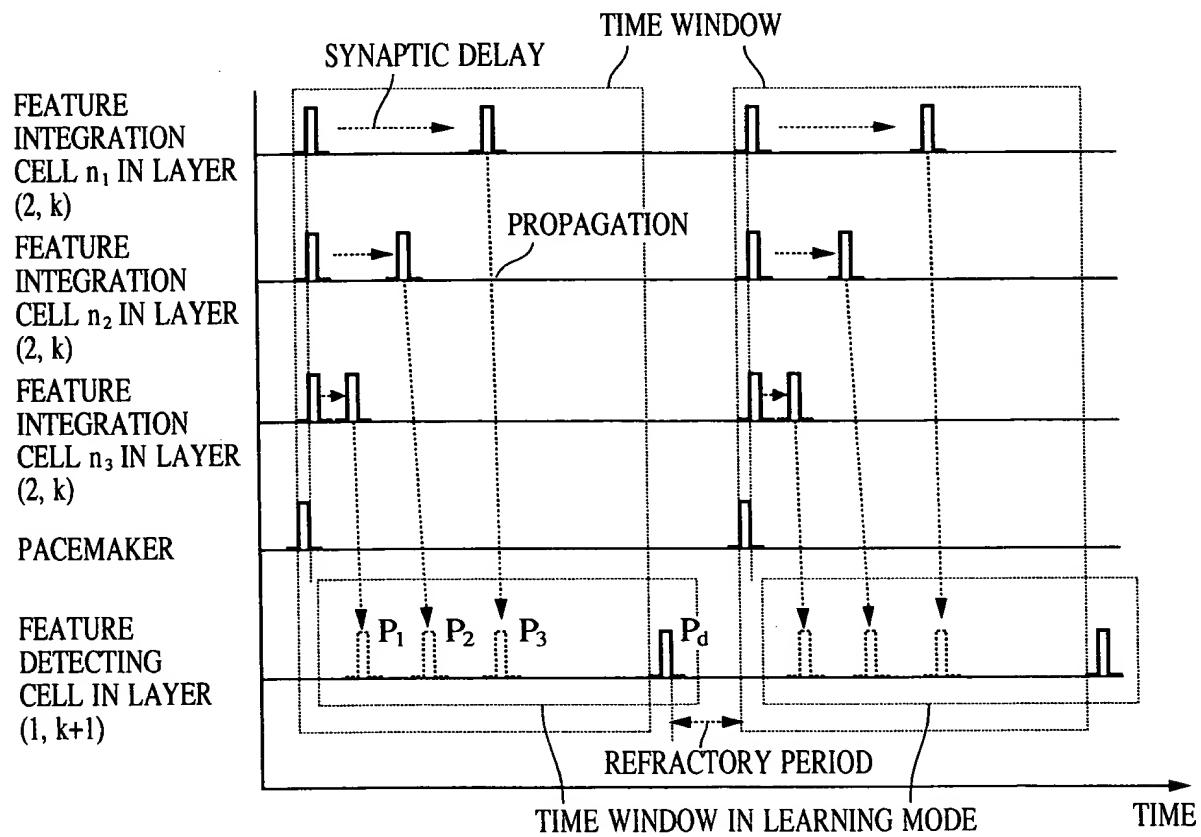


FIG. 4A

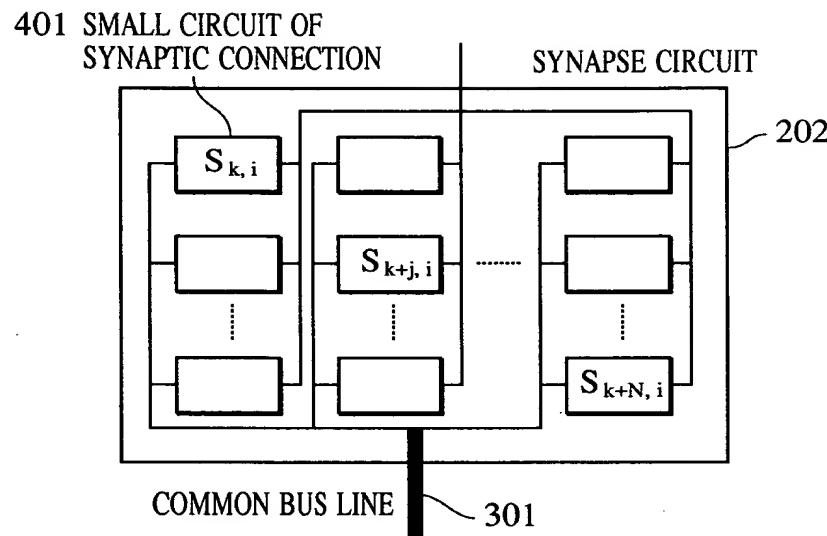


FIG. 4B

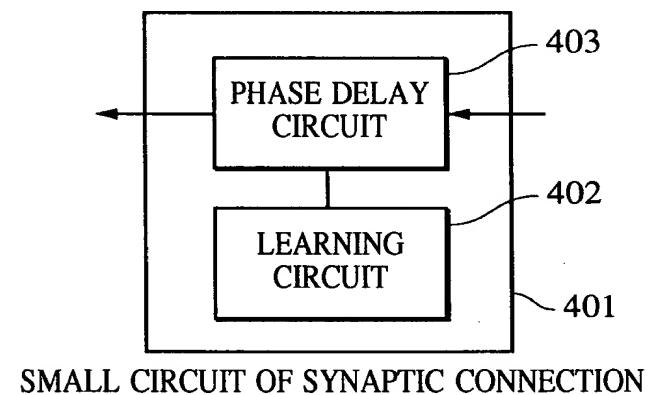


FIG. 4C

(LOCAL) COMMON BUS LINE

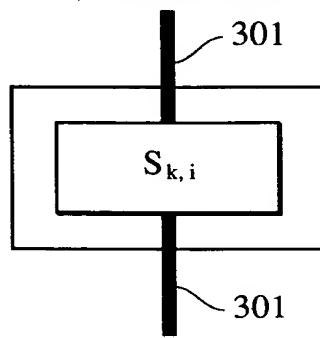


FIG. 5A

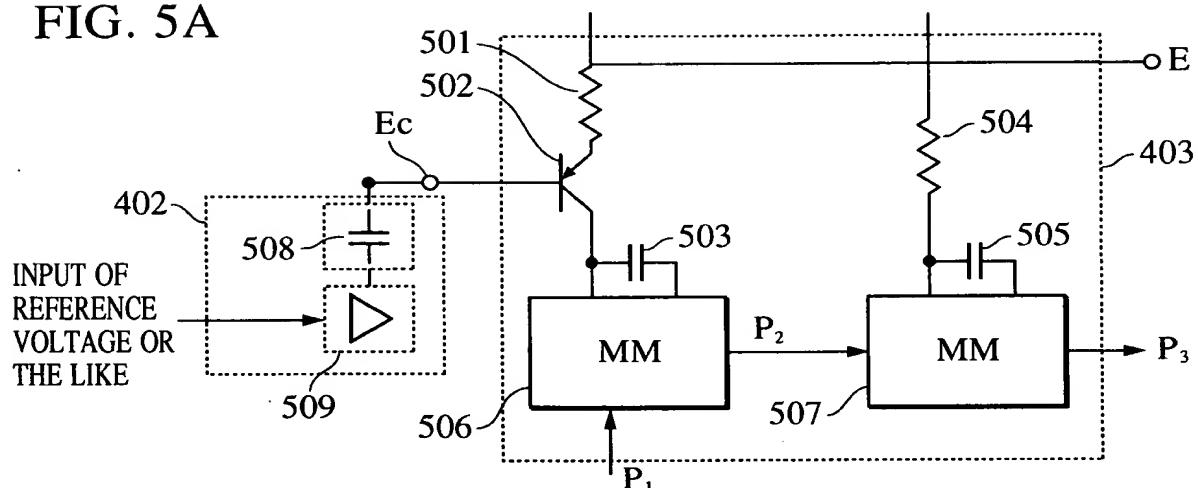


FIG. 5B

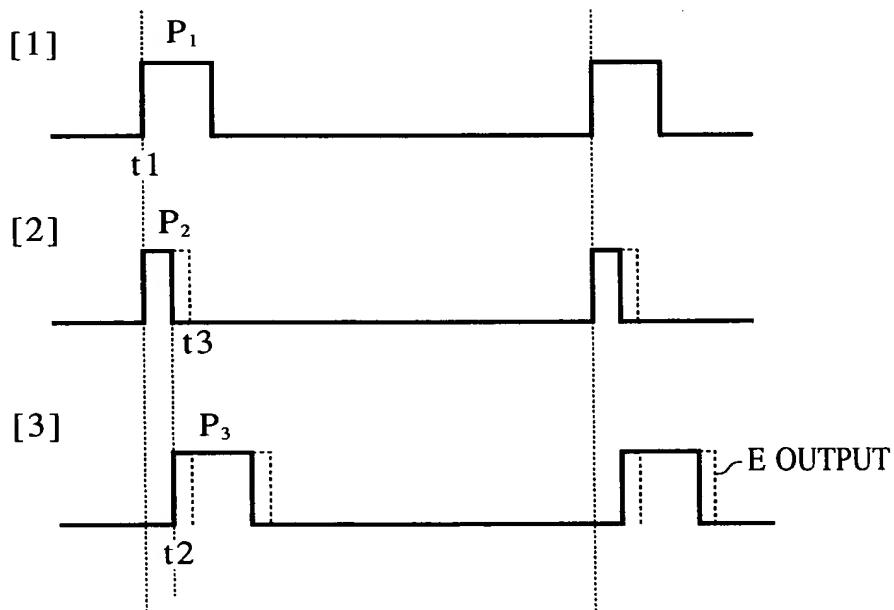


FIG. 5C

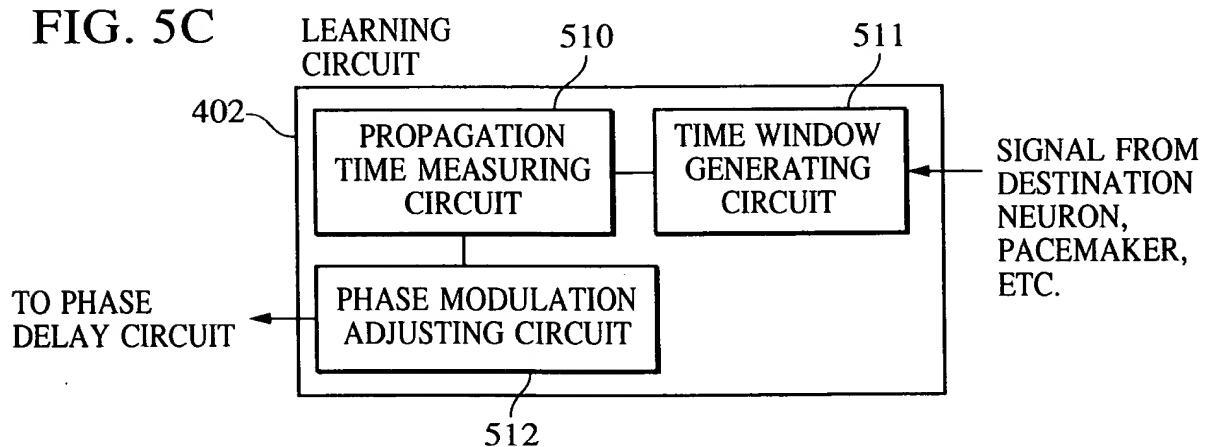


FIG. 6

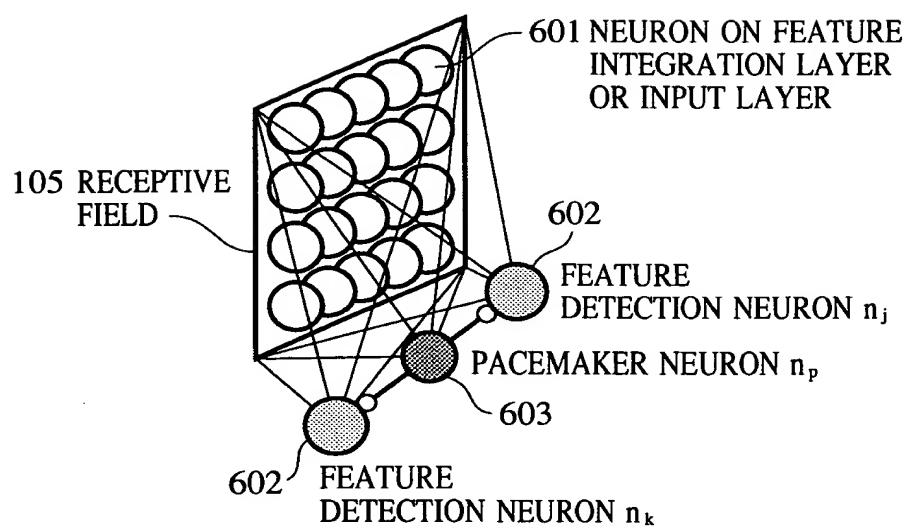


FIG. 7A

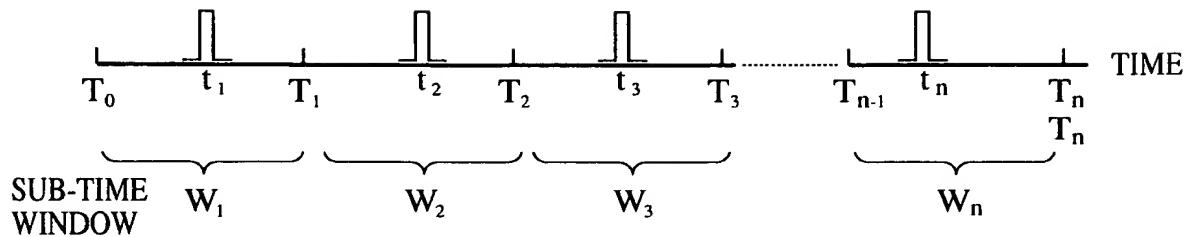


FIG. 7B

WEIGHTING FUNCTION

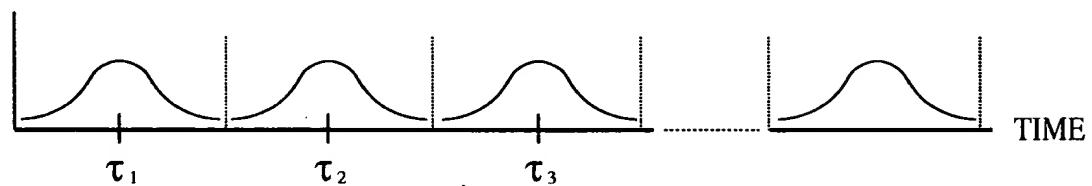


FIG. 7C

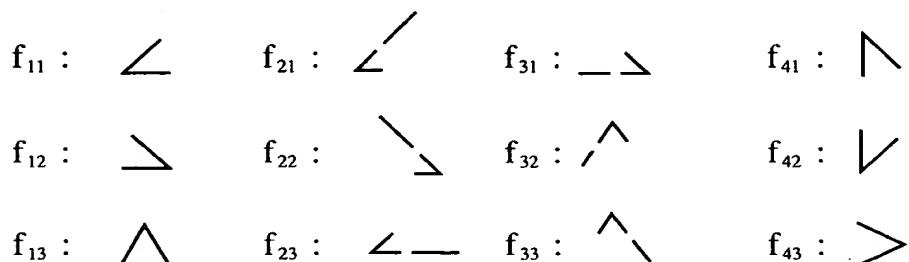


FIG. 7D

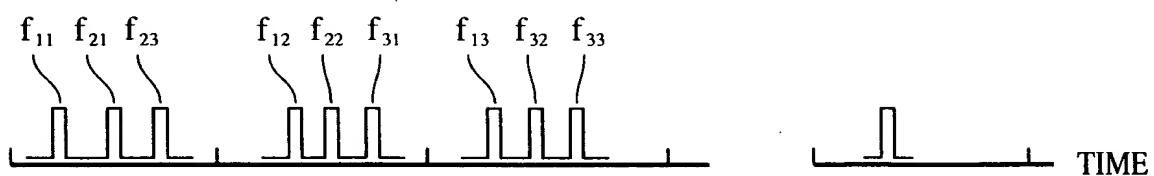


FIG. 7E

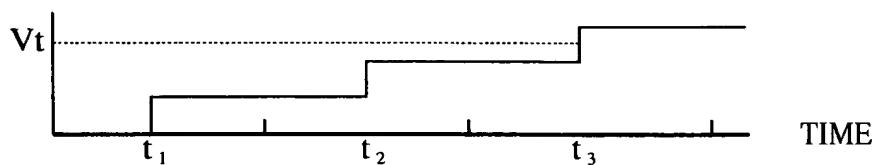


FIG. 8

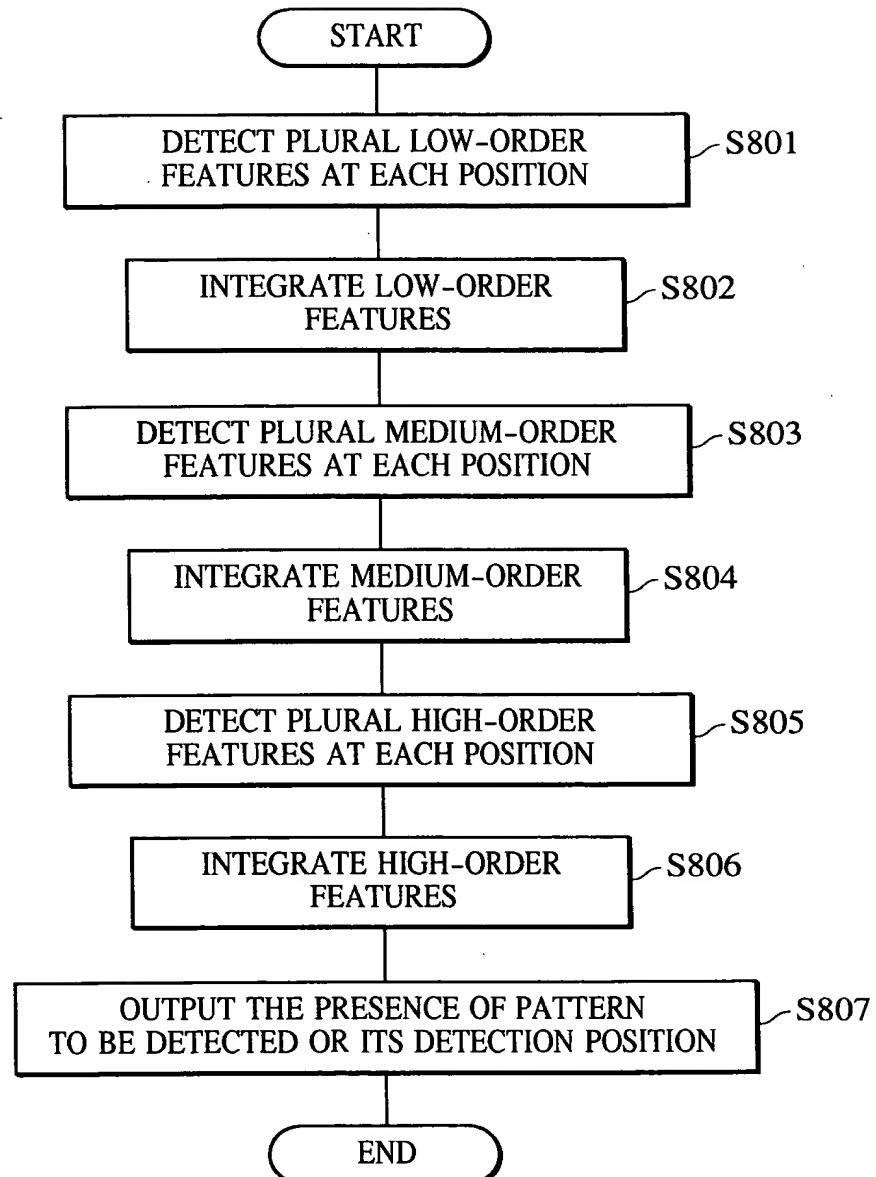


FIG. 9

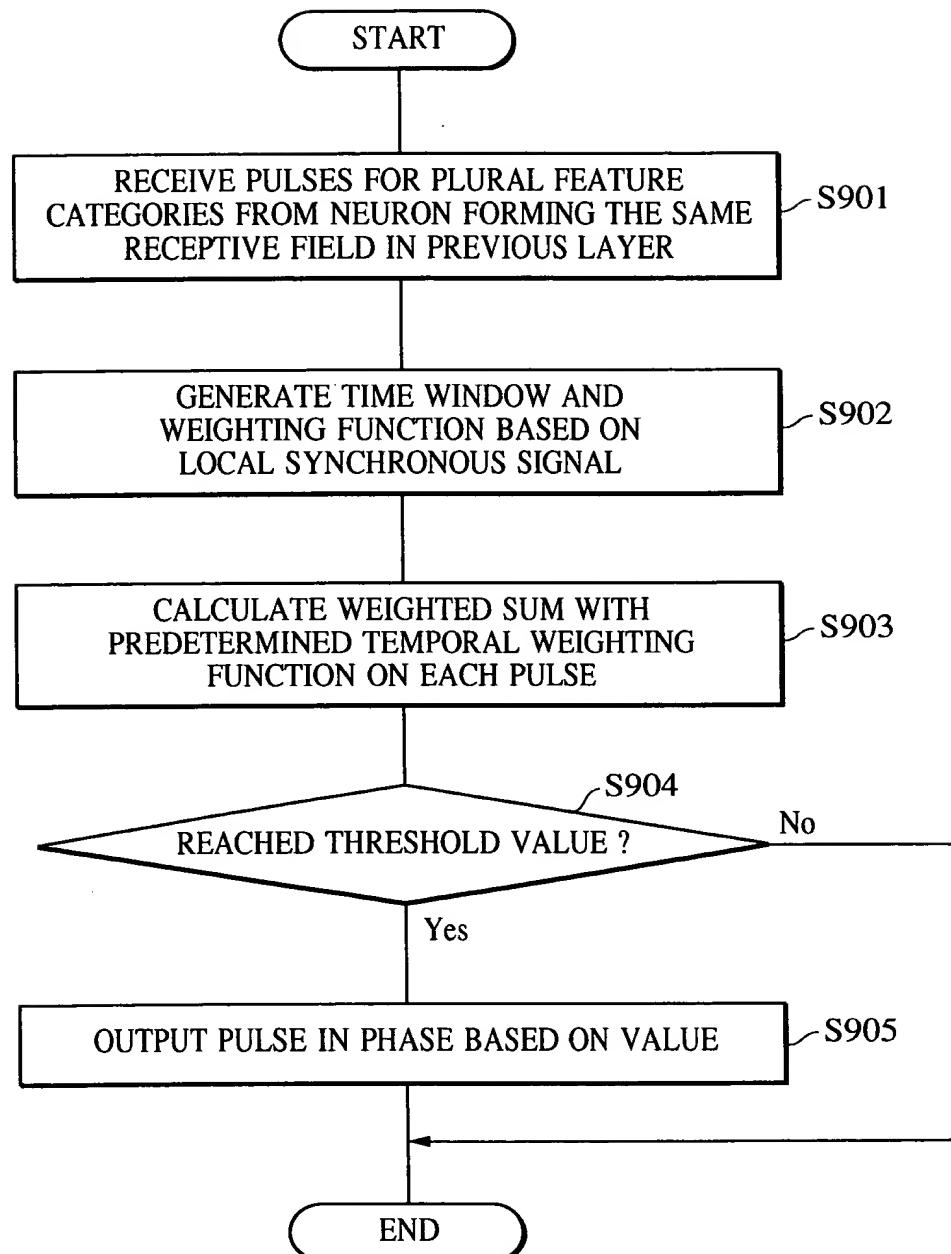


FIG. 10

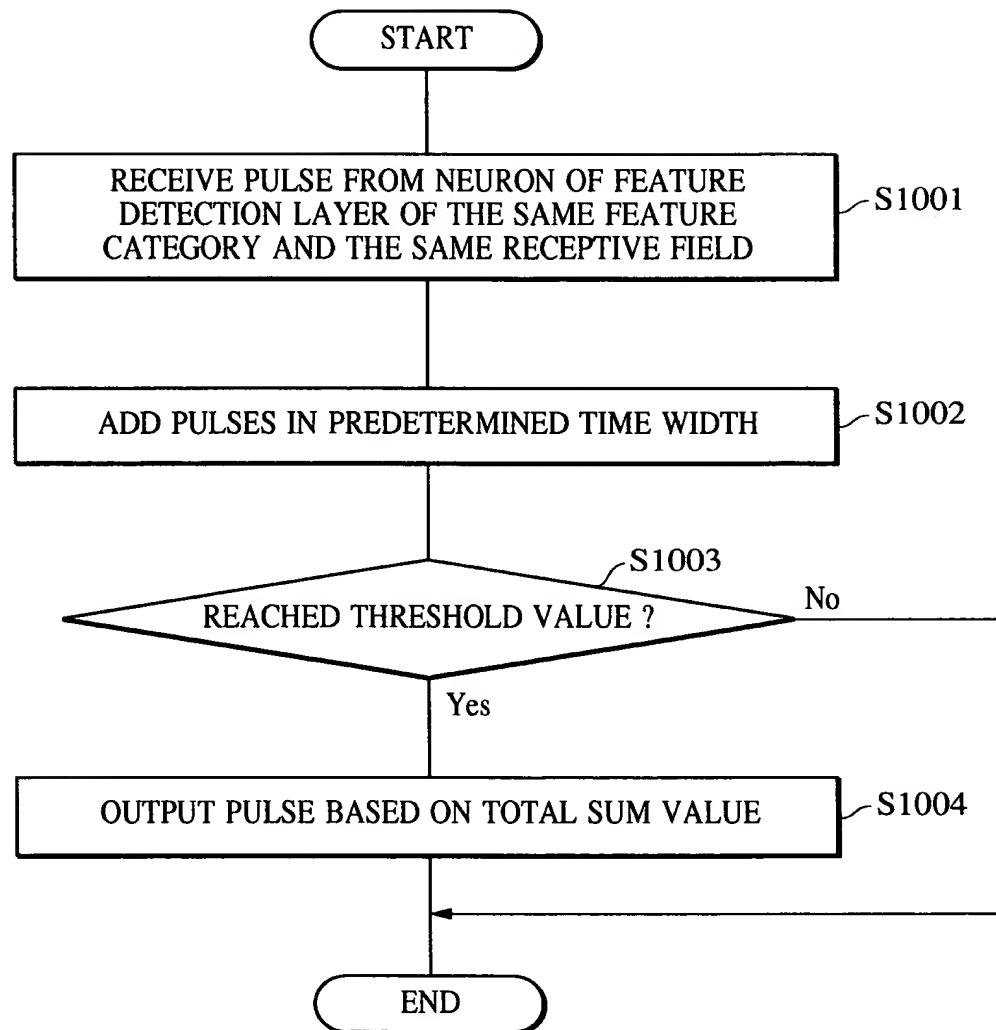


FIG. 11

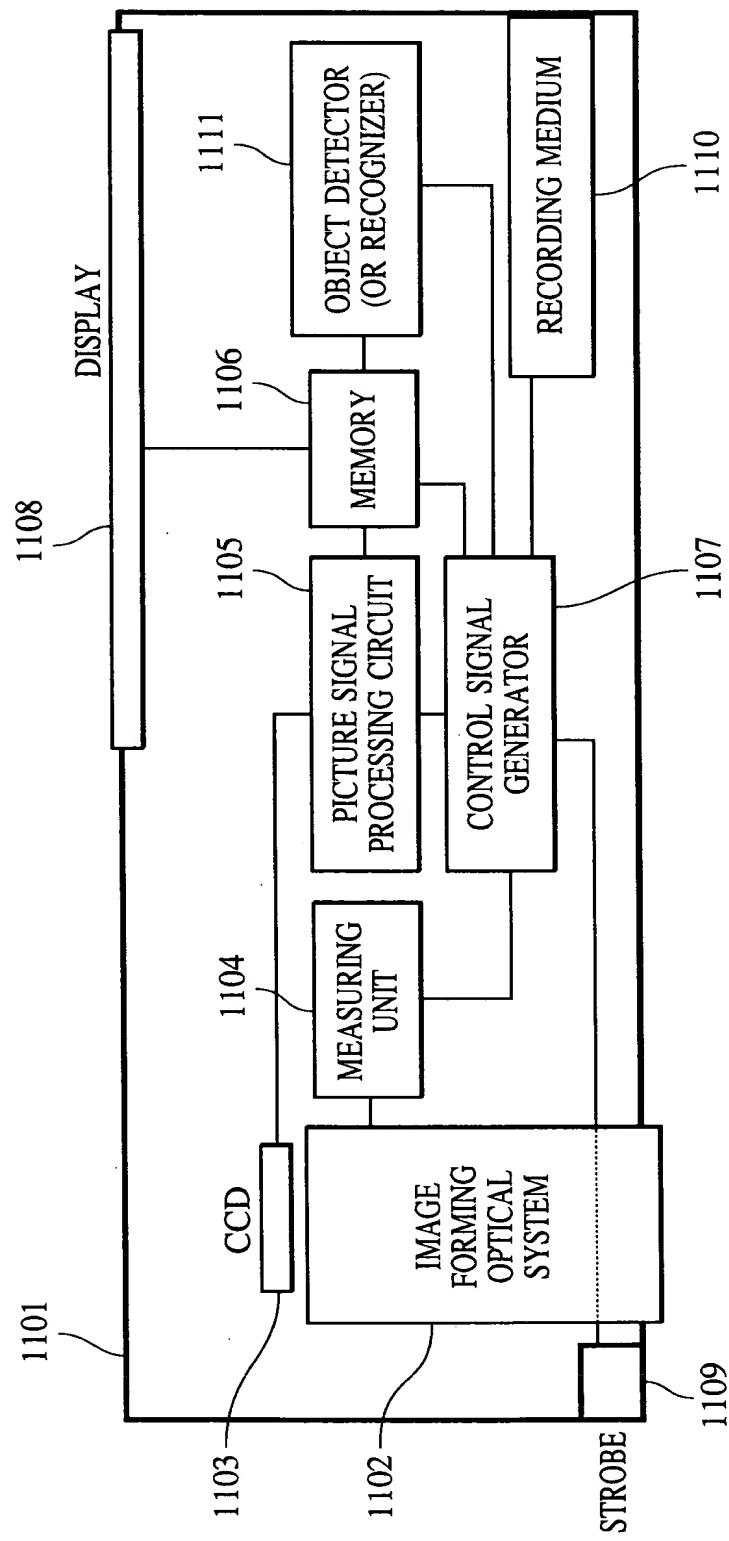


FIG. 12A

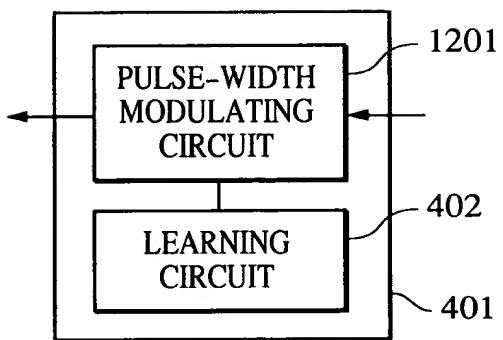


FIG. 12B

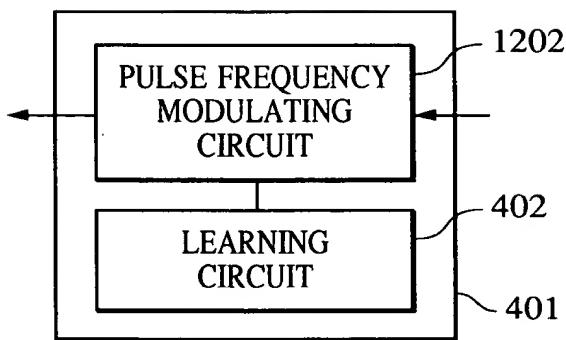


FIG. 13

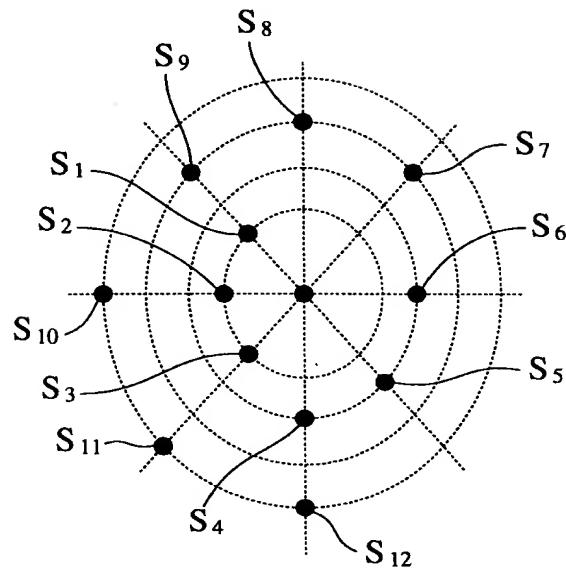


FIG. 14

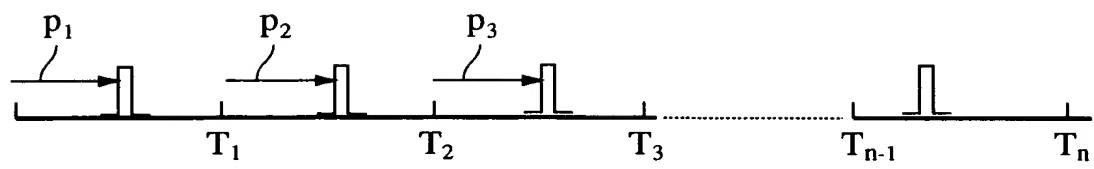


FIG. 15

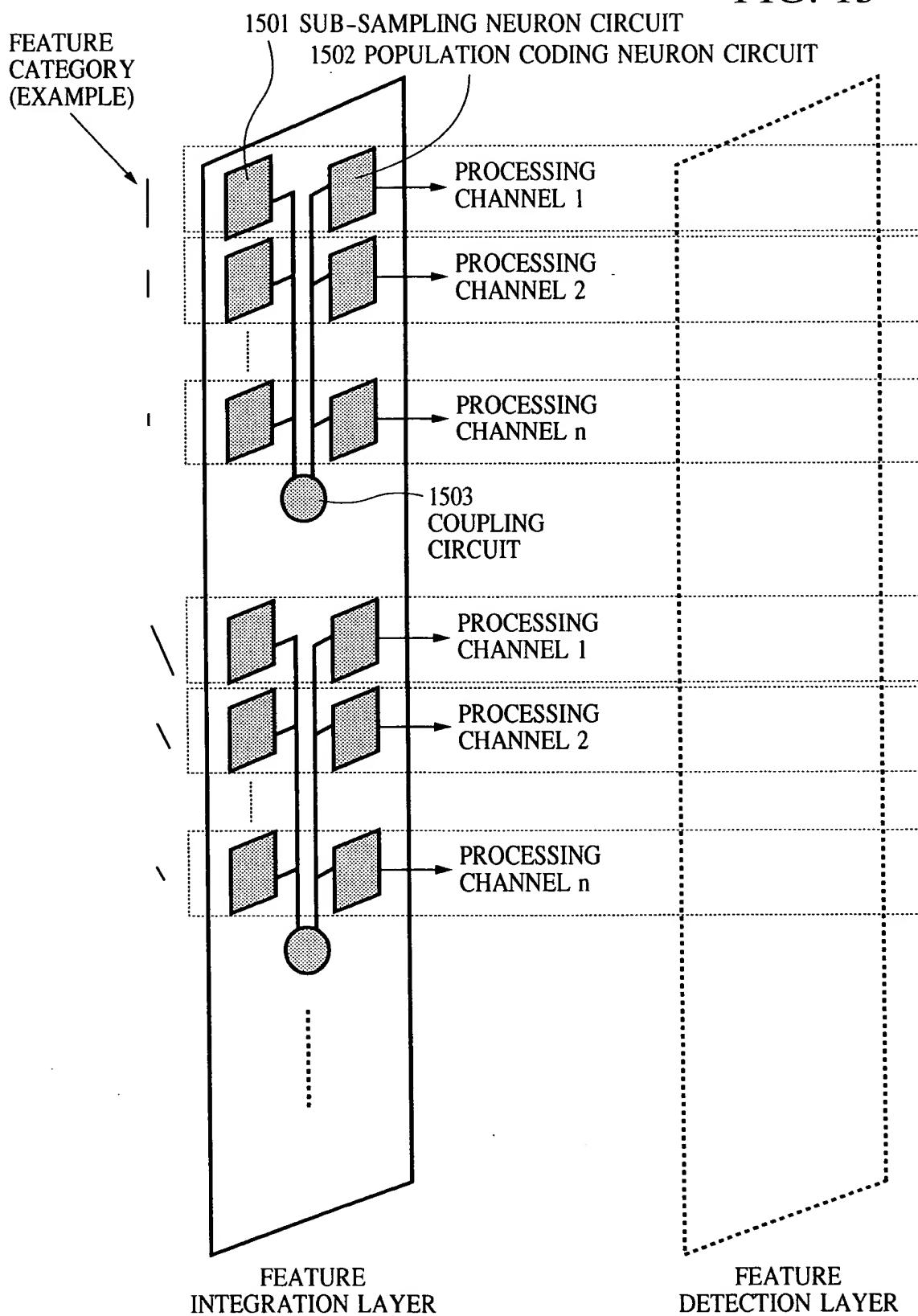


FIG. 16

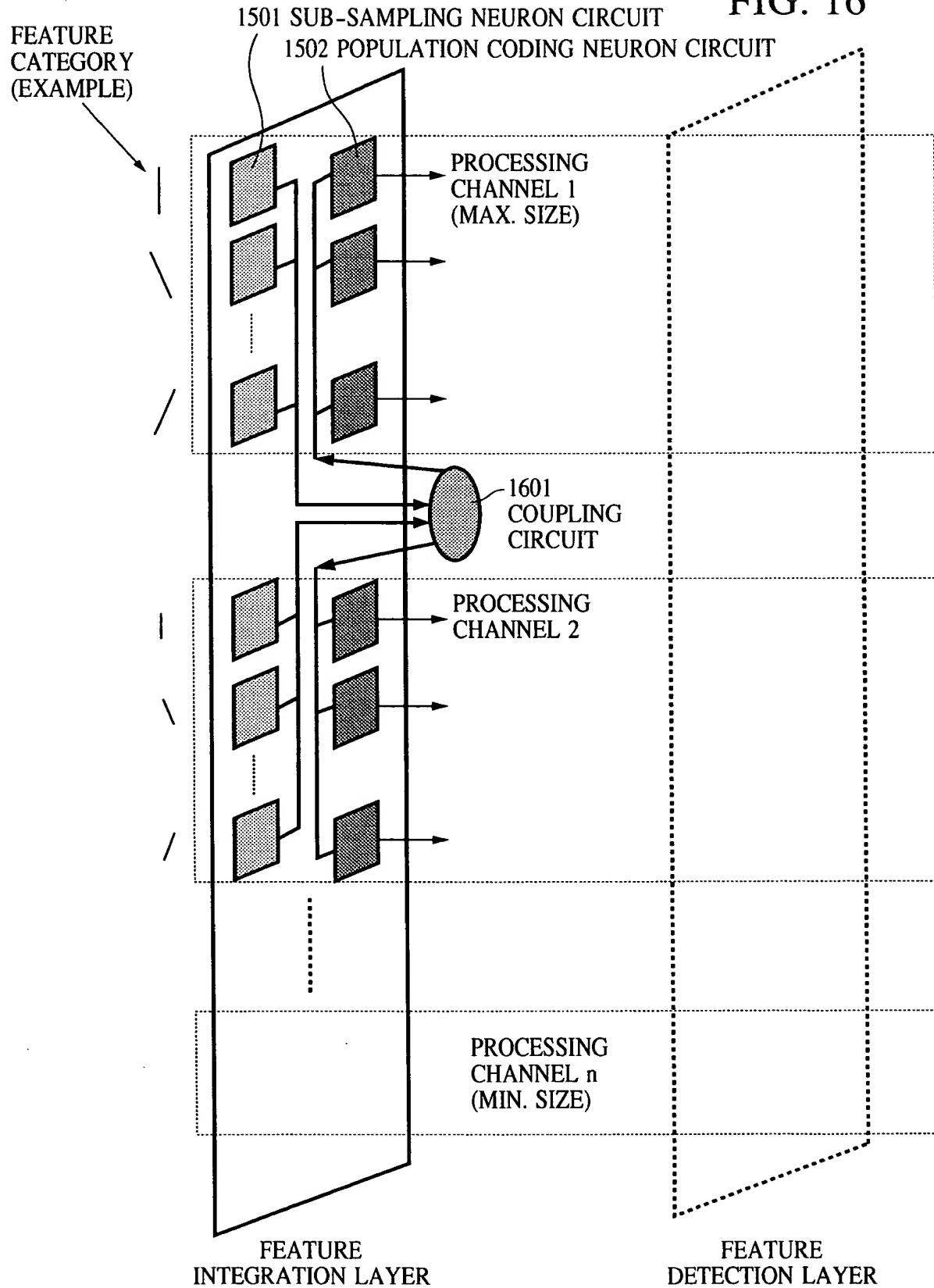


FIG. 17

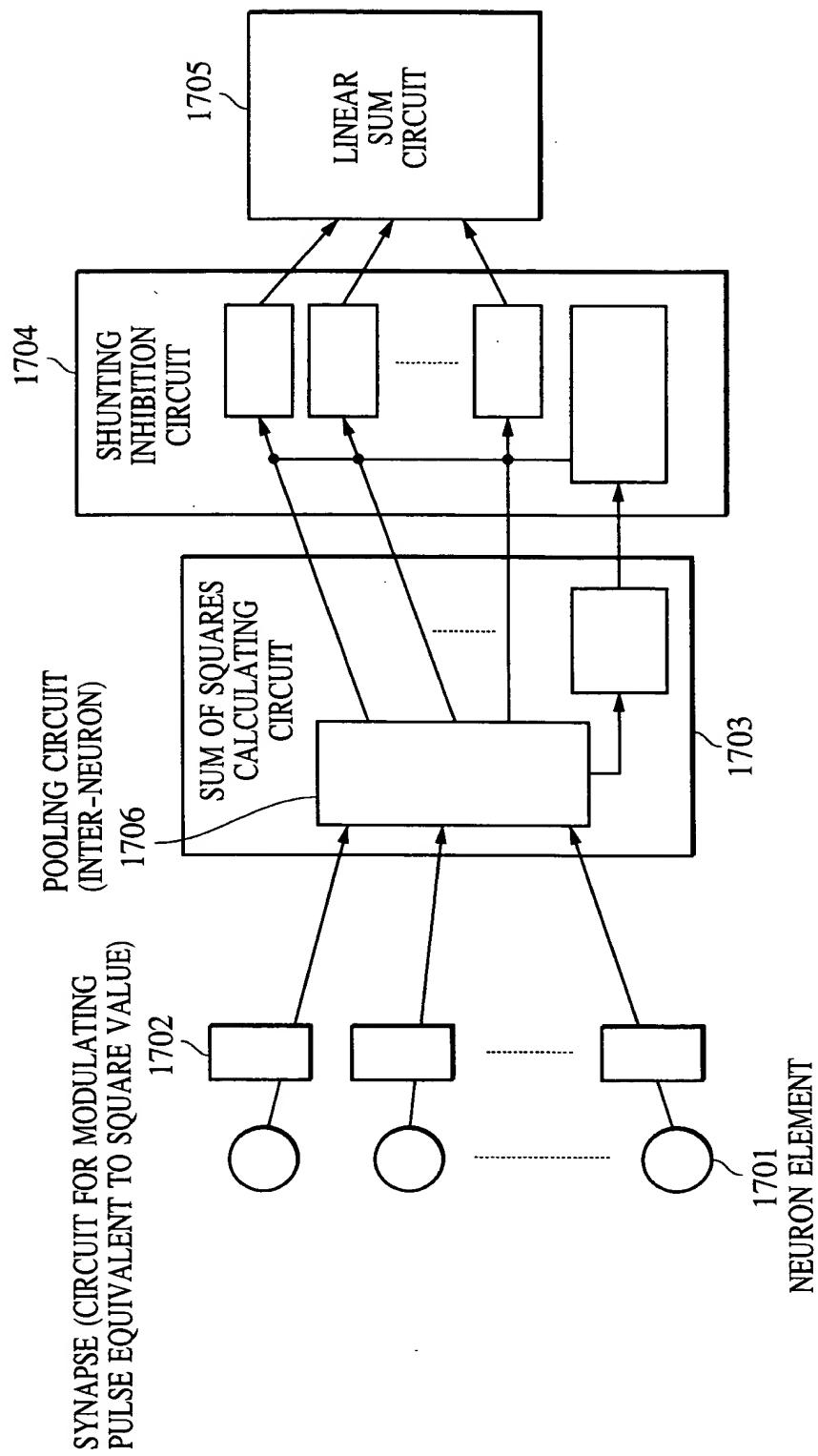


FIG. 18

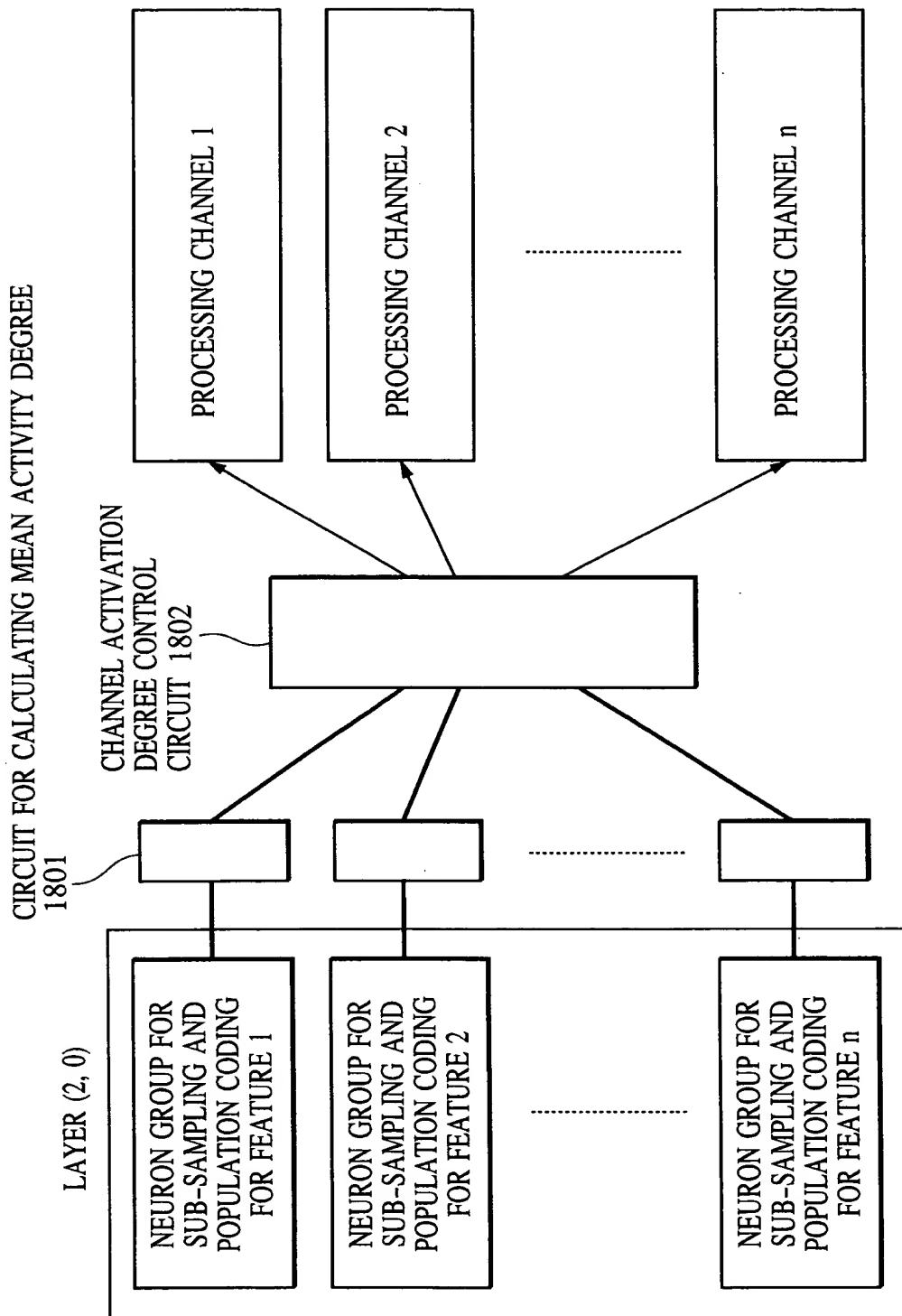


FIG. 19A  
CIRCUIT FOR CALCULATING MEAN ACTIVITY DEGREE  
LAYER (2, 0)  
1901  
1902  
1903

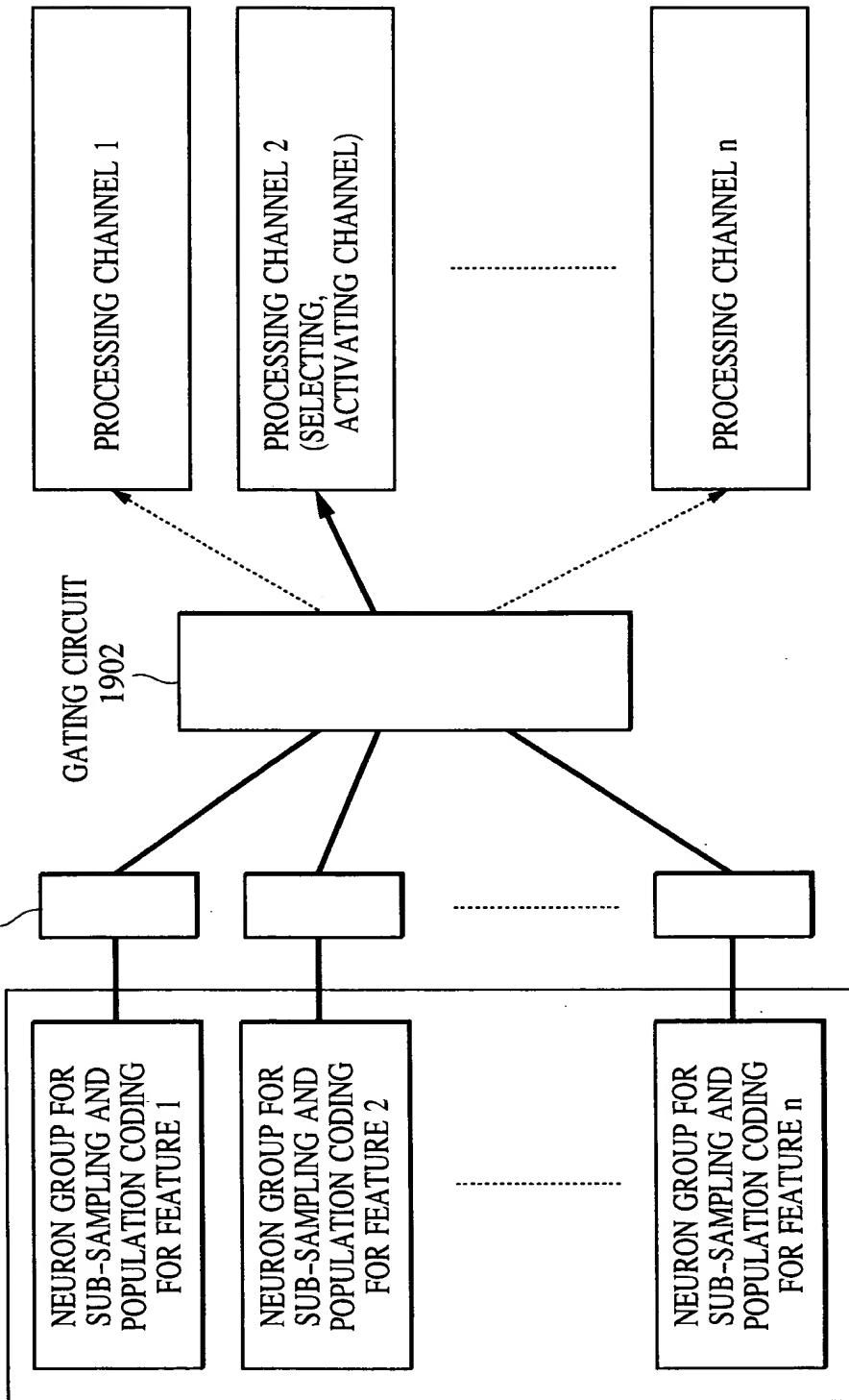


FIG. 19B

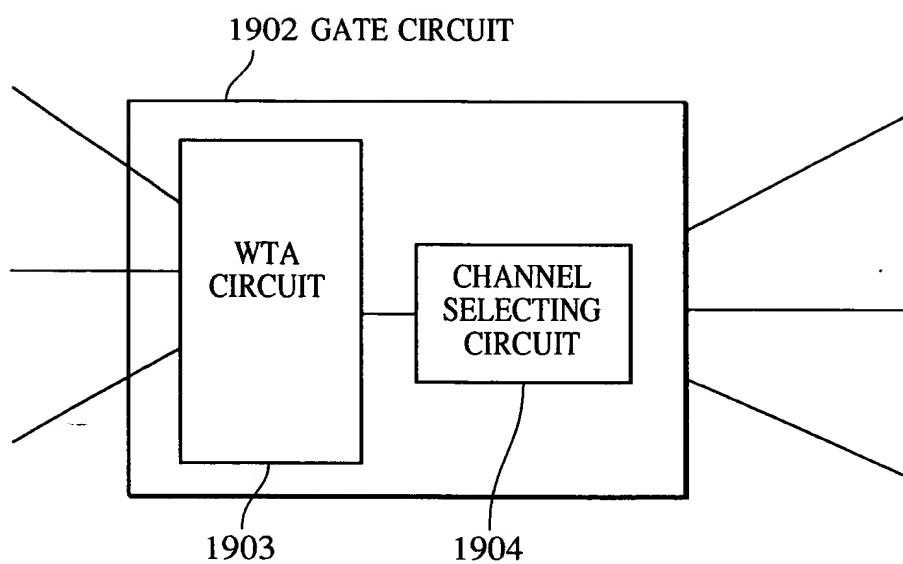


FIG. 20

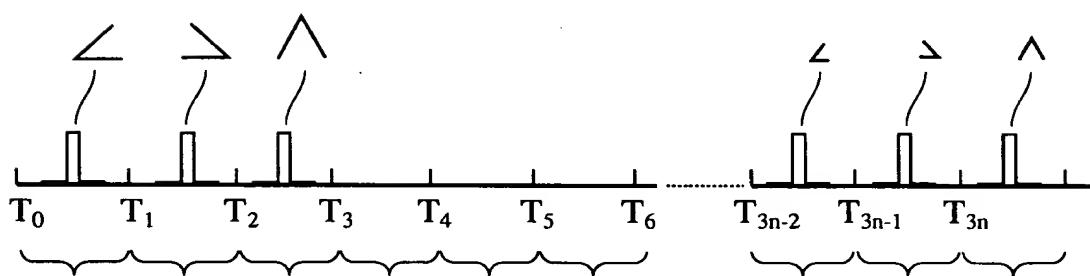


FIG. 21

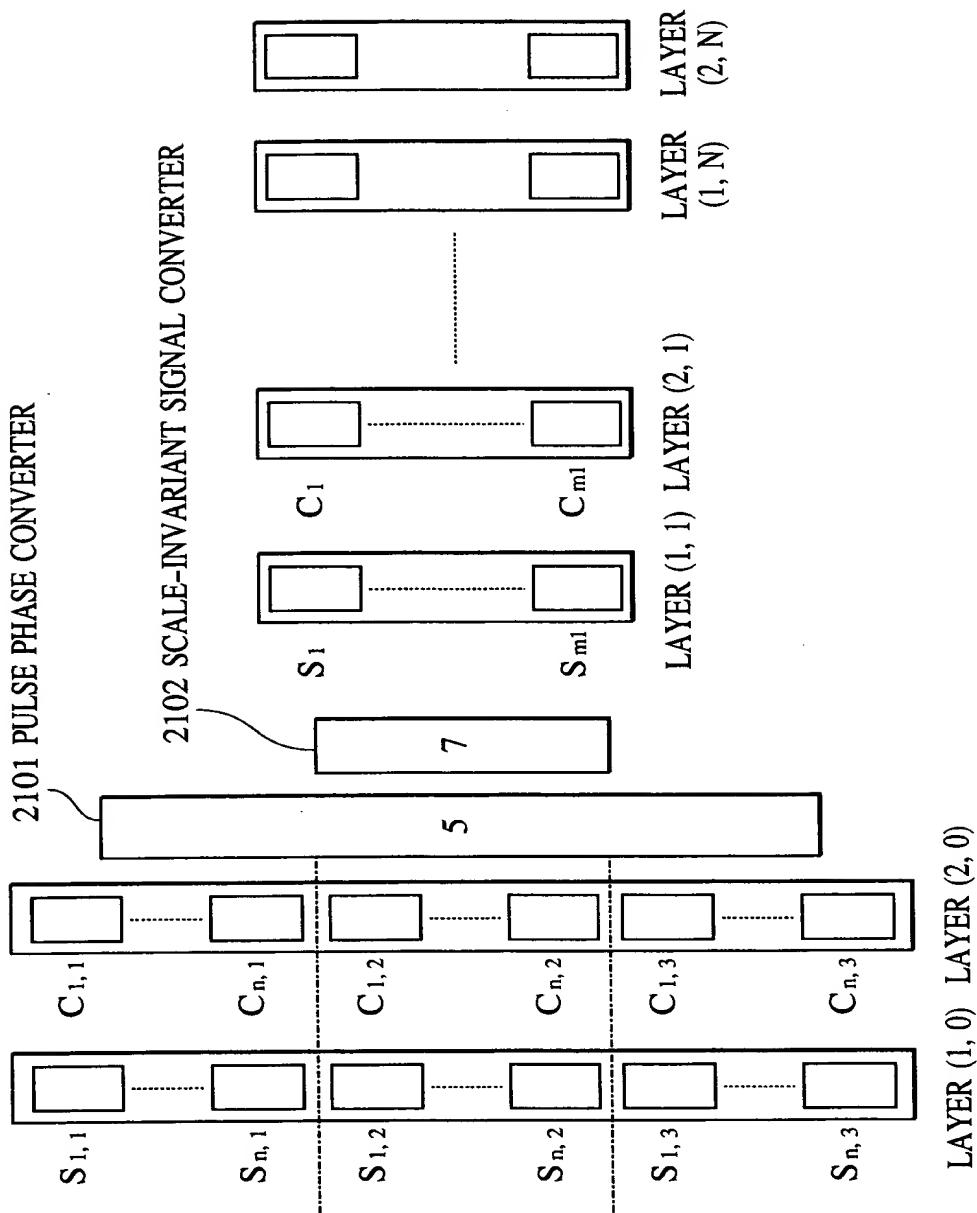


FIG. 22

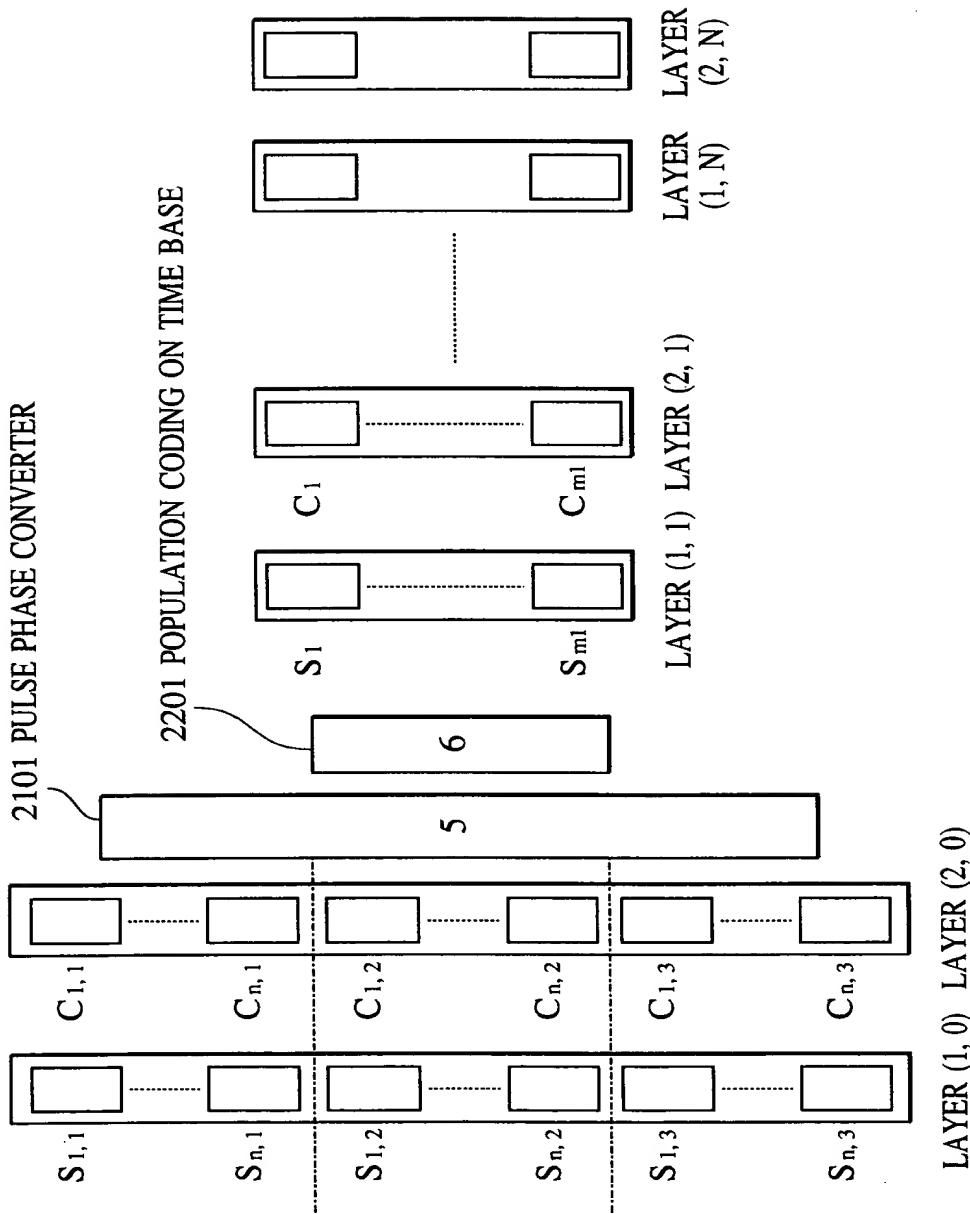


FIG. 23A

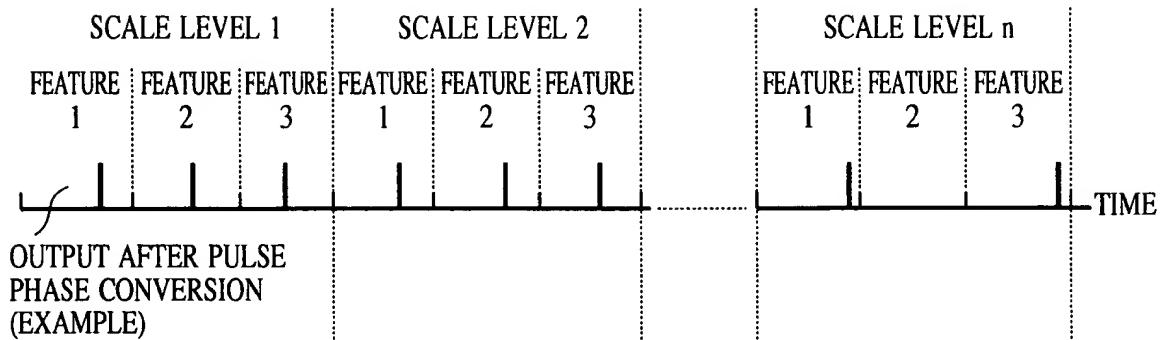


FIG. 23B

TIME WINDOW WEIGHTING FUNCTION FOR  
FEATURE DETECTION CELL OUTPUT  
OF POPULATION CODING CELL OF  
FEATURE INTEGRATION LAYER AFTER  
CHANNEL 1 (SCALE LEVEL 1) IS SELECTED BY  
GATING CIRCUIT

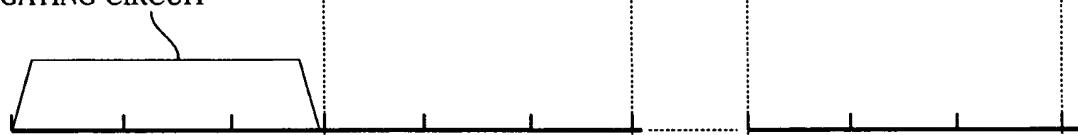


FIG. 23C

SCALE-INVARIANT SIGNAL OBTAINED AS A RESULT  
OF POPULATION CODING CELL OUTPUT OF  
CHARACTERISTIC INTEGRATION LAYER

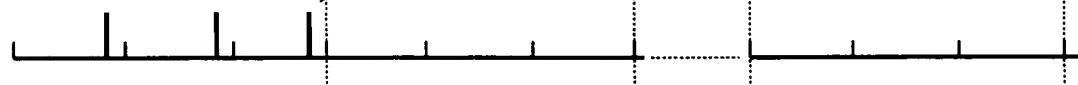


FIG. 23D

PULSE TRAIN AFTER SCALE-INVARIANT SIGNAL IS  
DISTRIBUTED AND COPIED TO CHANNEL ADJACENT  
TO CHANNEL 1 IN LEARNING MODE



FIG. 24A

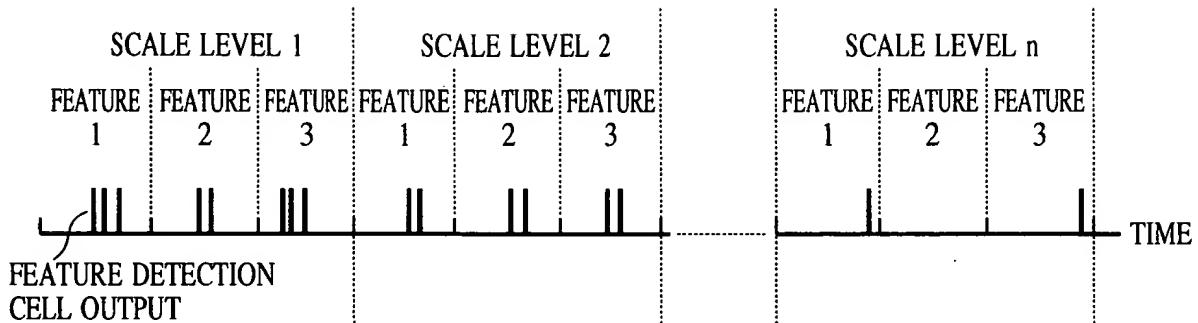


FIG. 24B

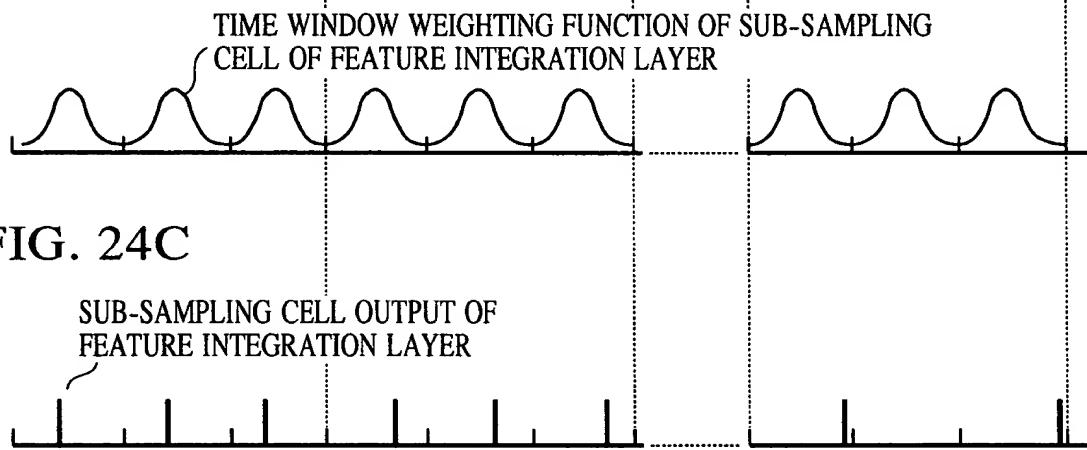


FIG. 24D

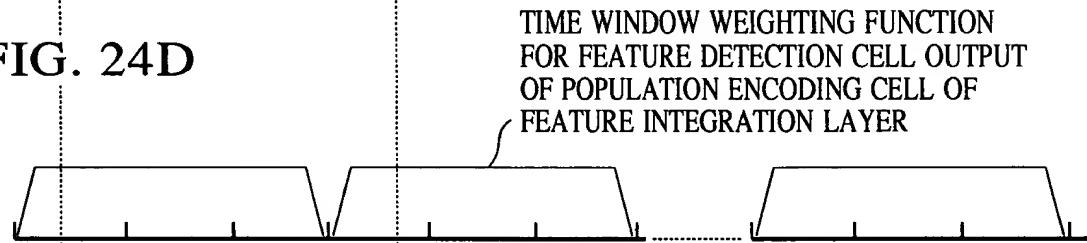


FIG. 24E

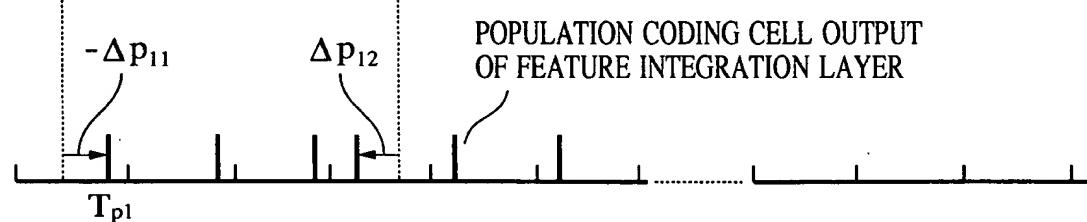
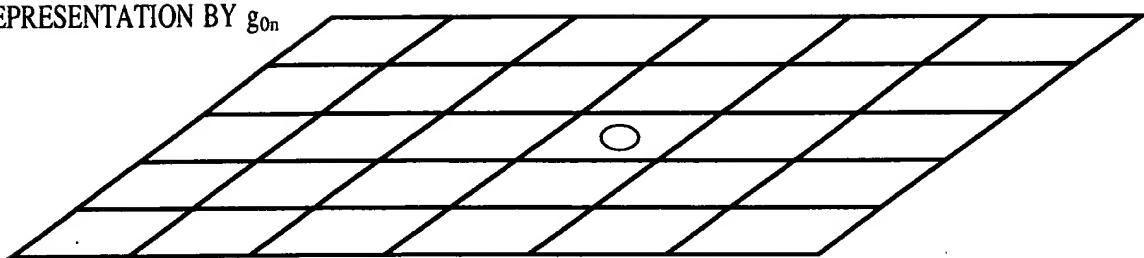
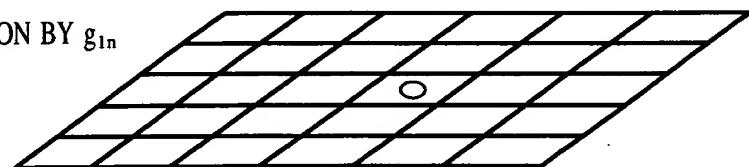


FIG. 25

REPRESENTATION BY  $g_{0n}$



REPRESENTATION BY  $g_{1n}$



REPRESENTATION BY  $g_{2n}$

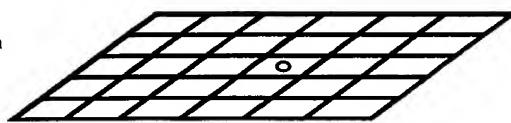


FIG. 26

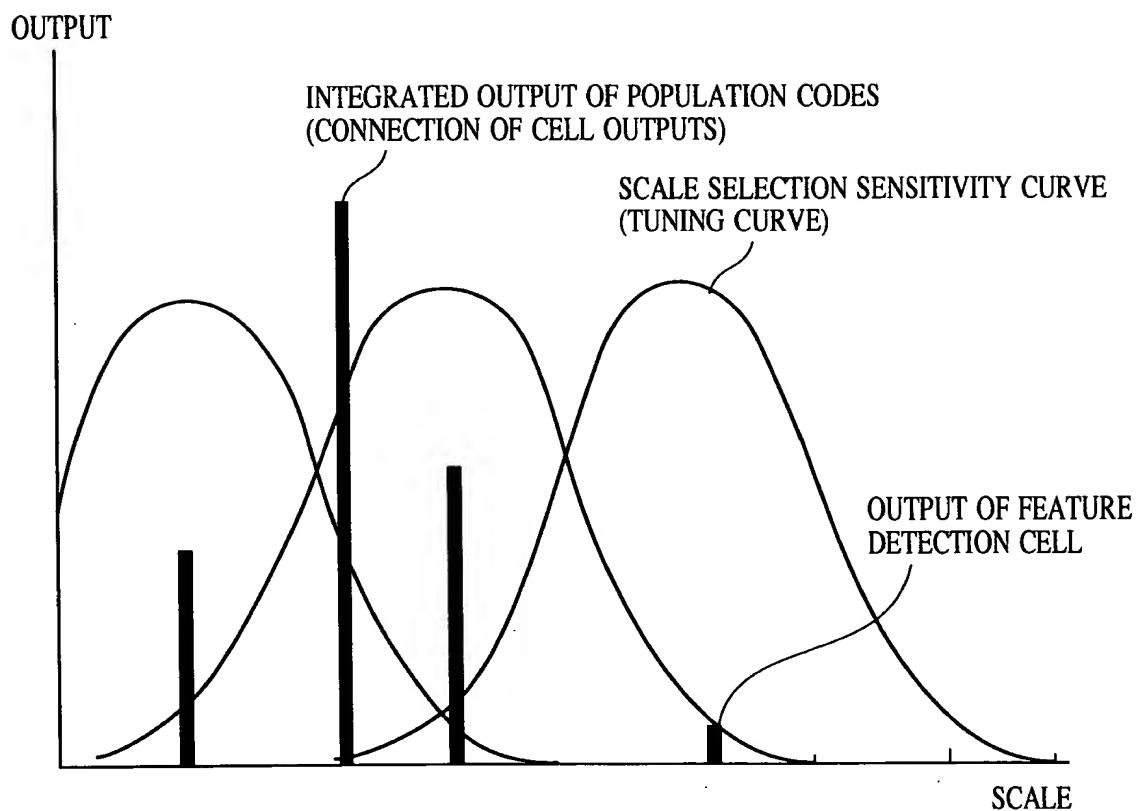


FIG. 27

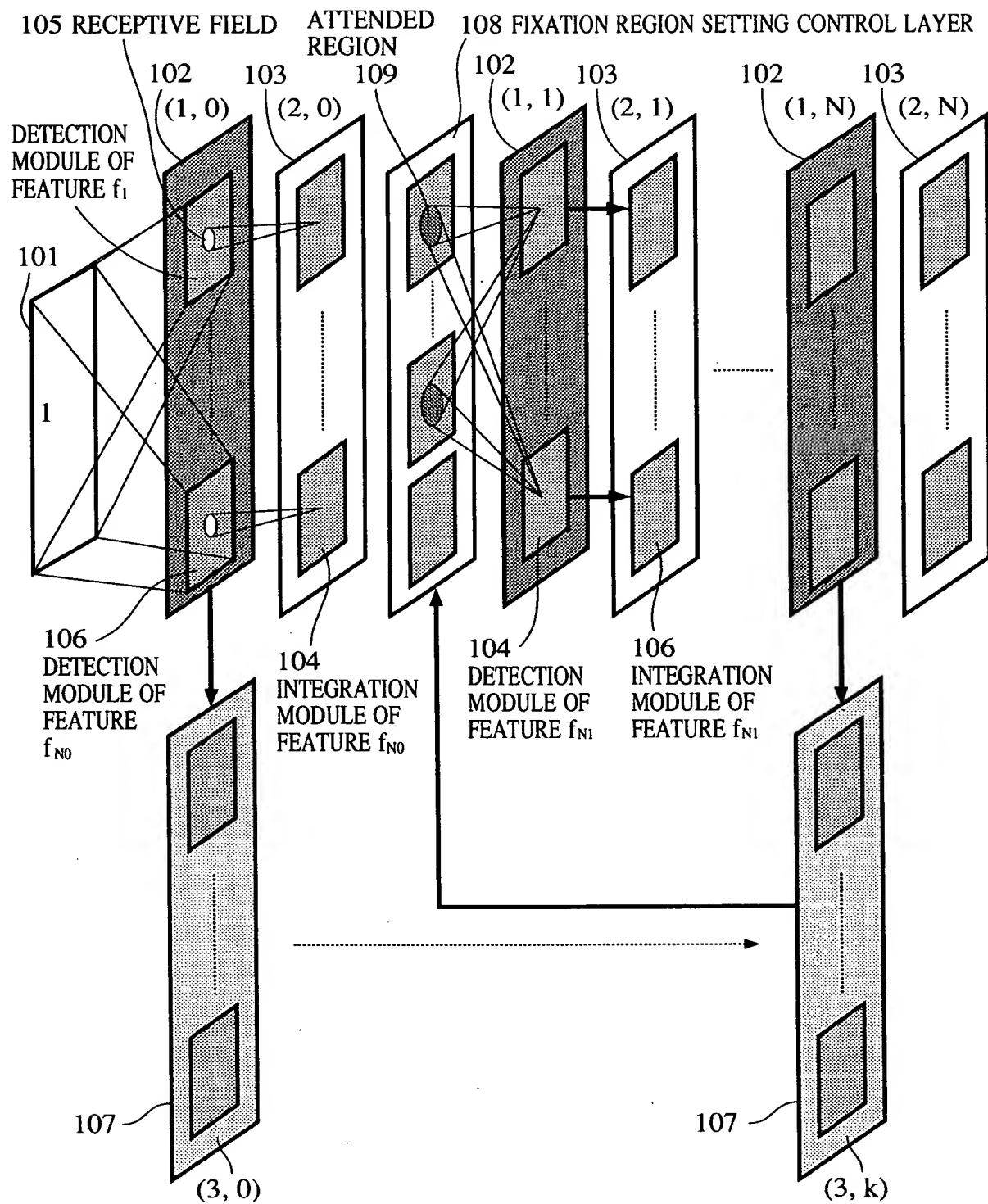


FIG. 28

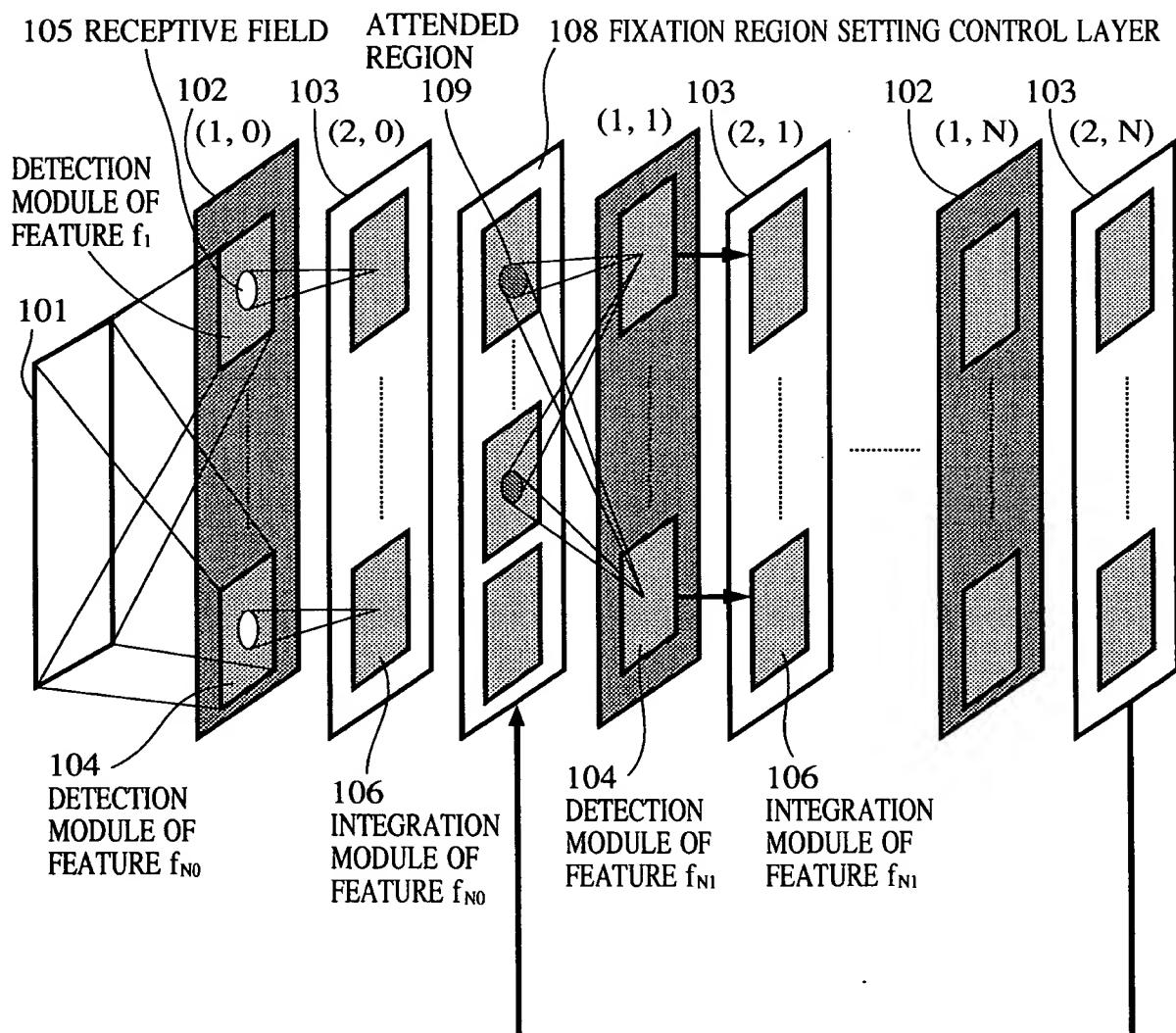


FIG. 29

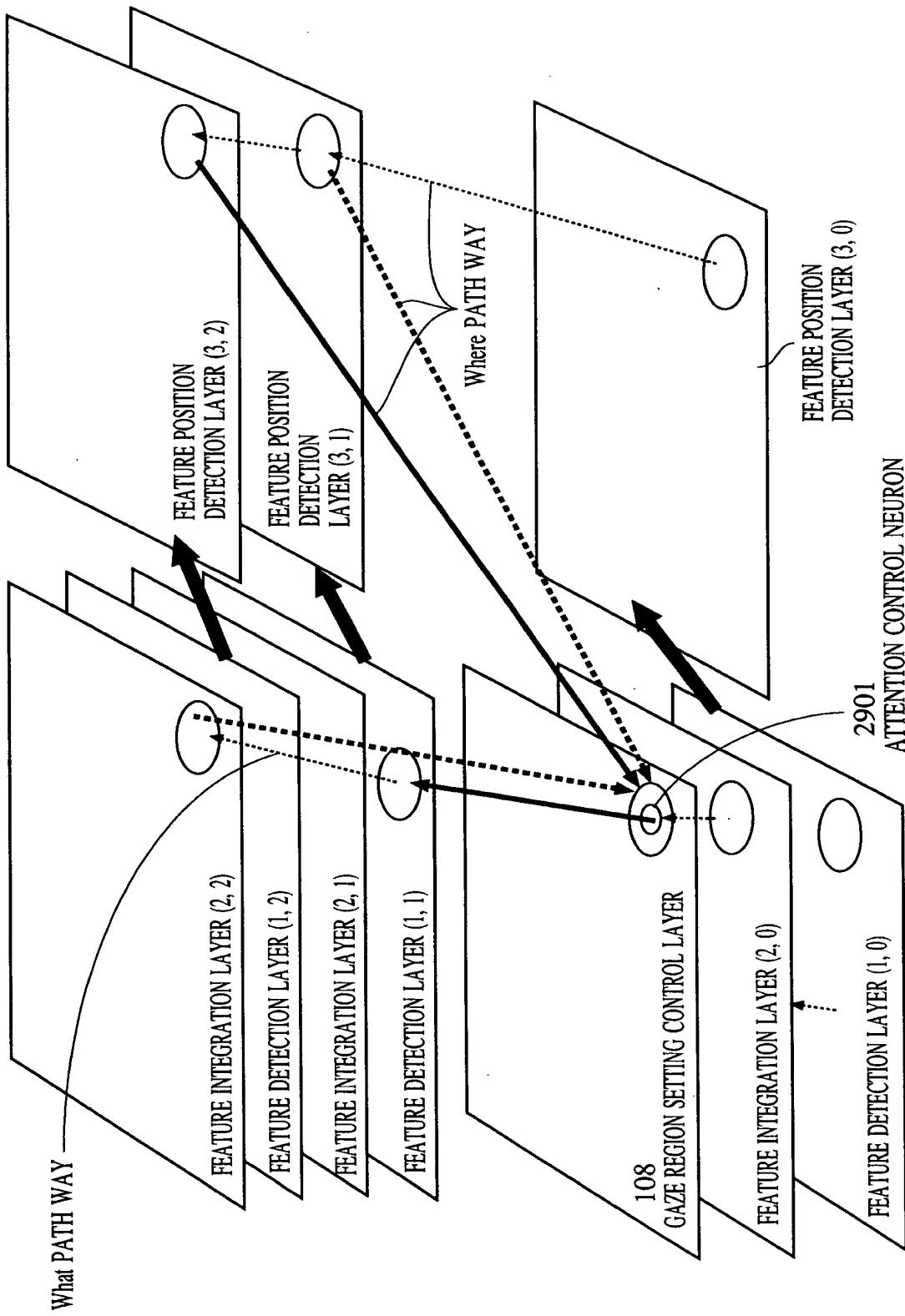


FIG. 30

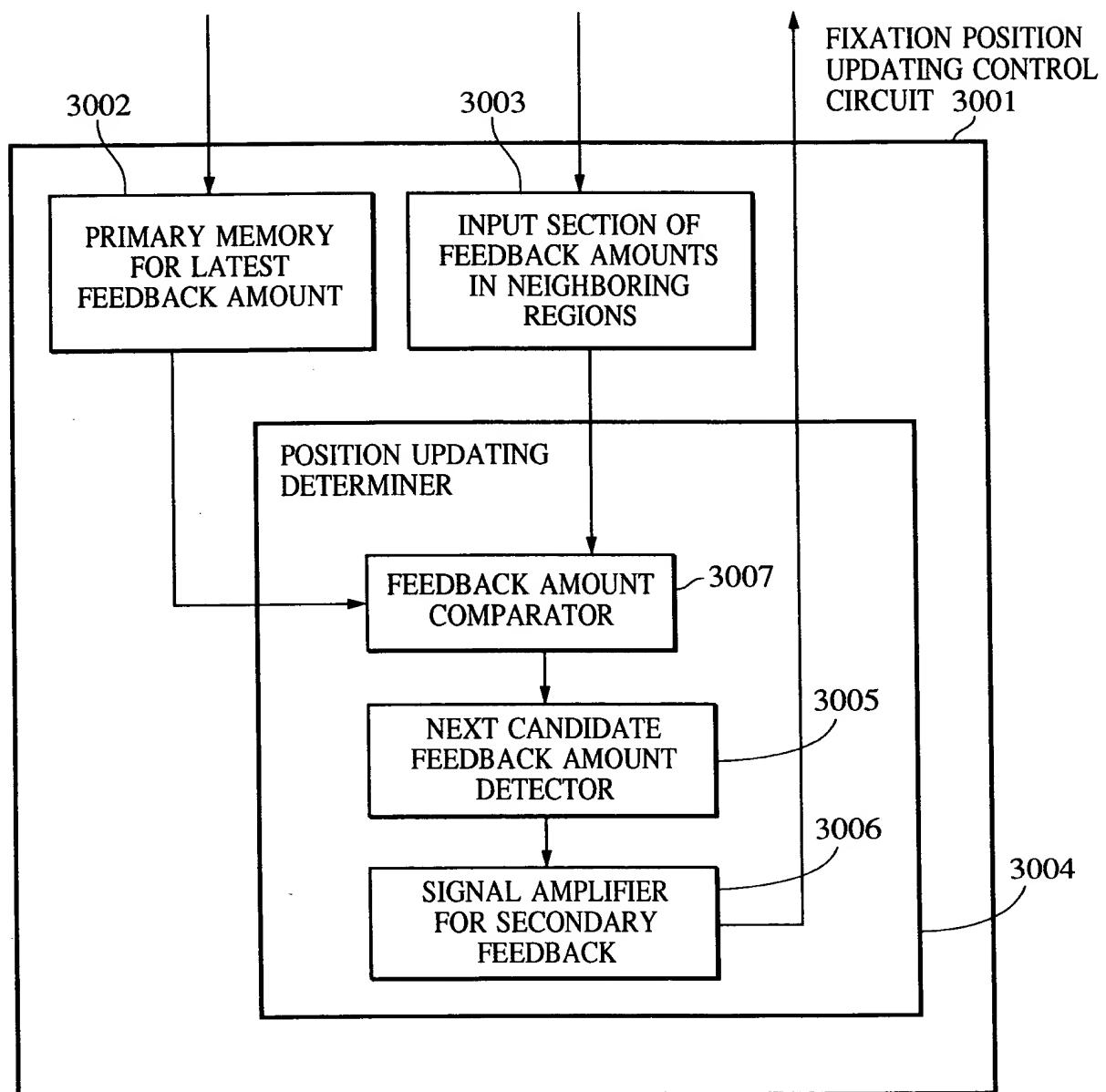


FIG. 31

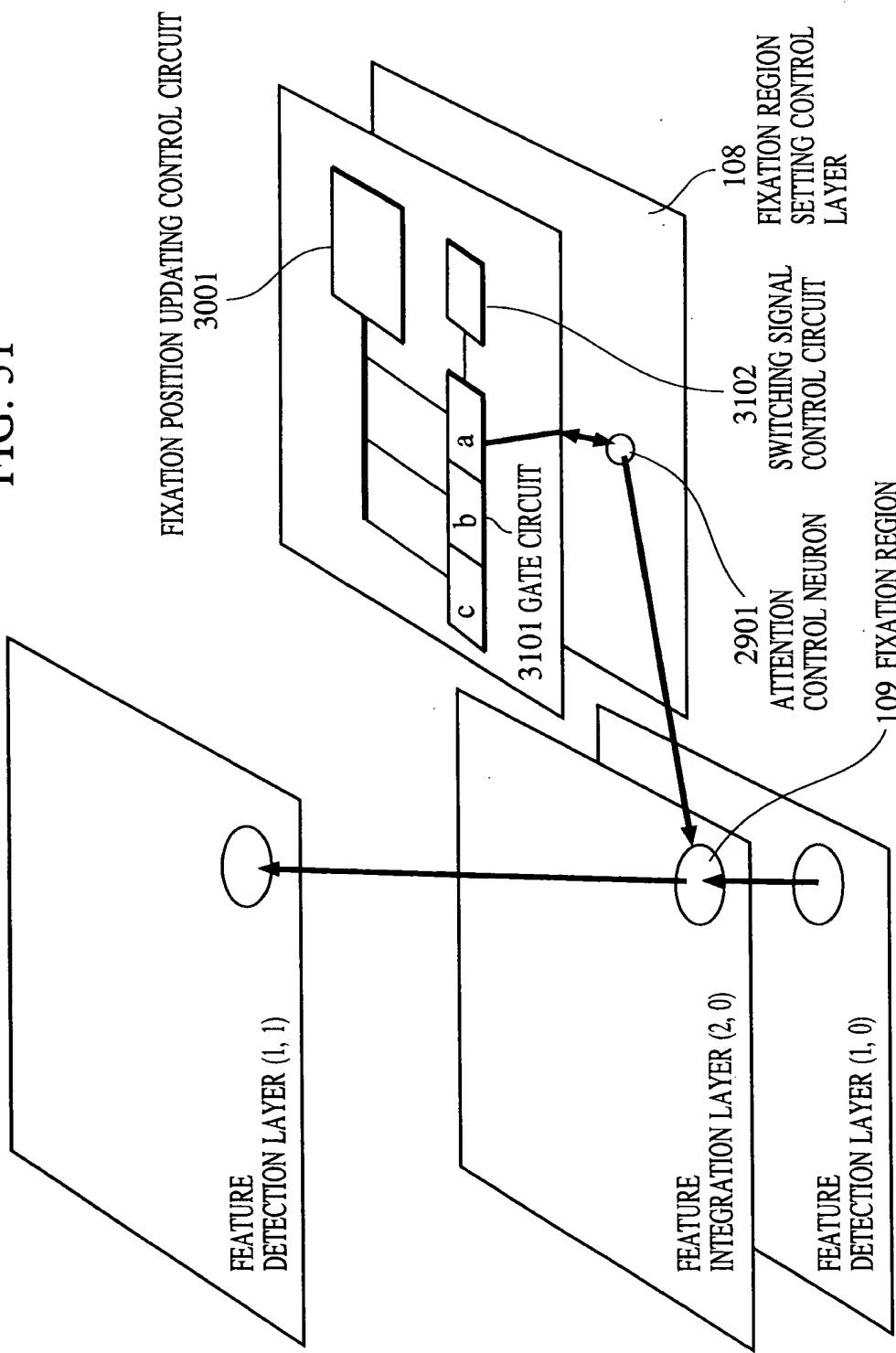


FIG. 32

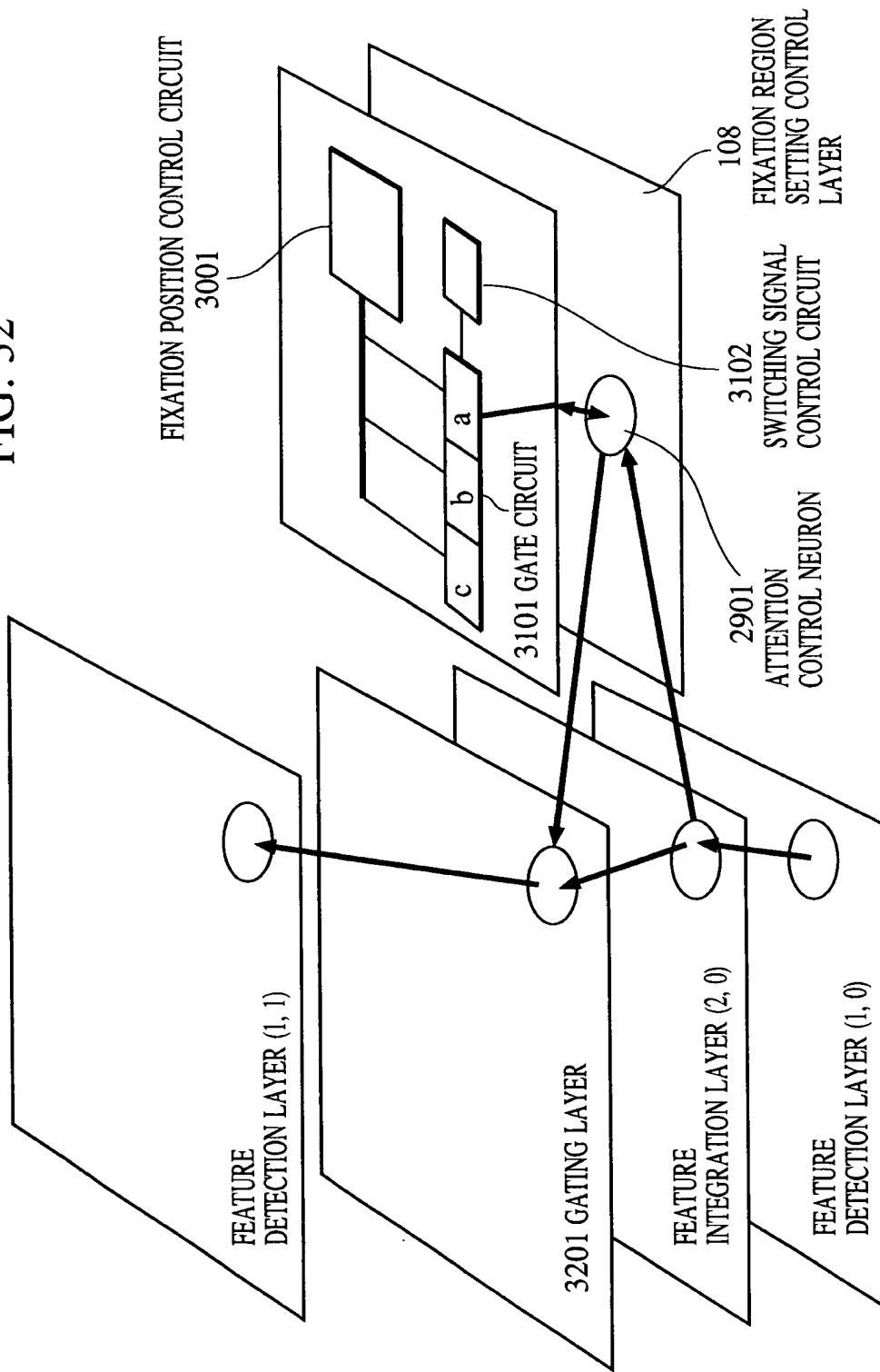


FIG. 33

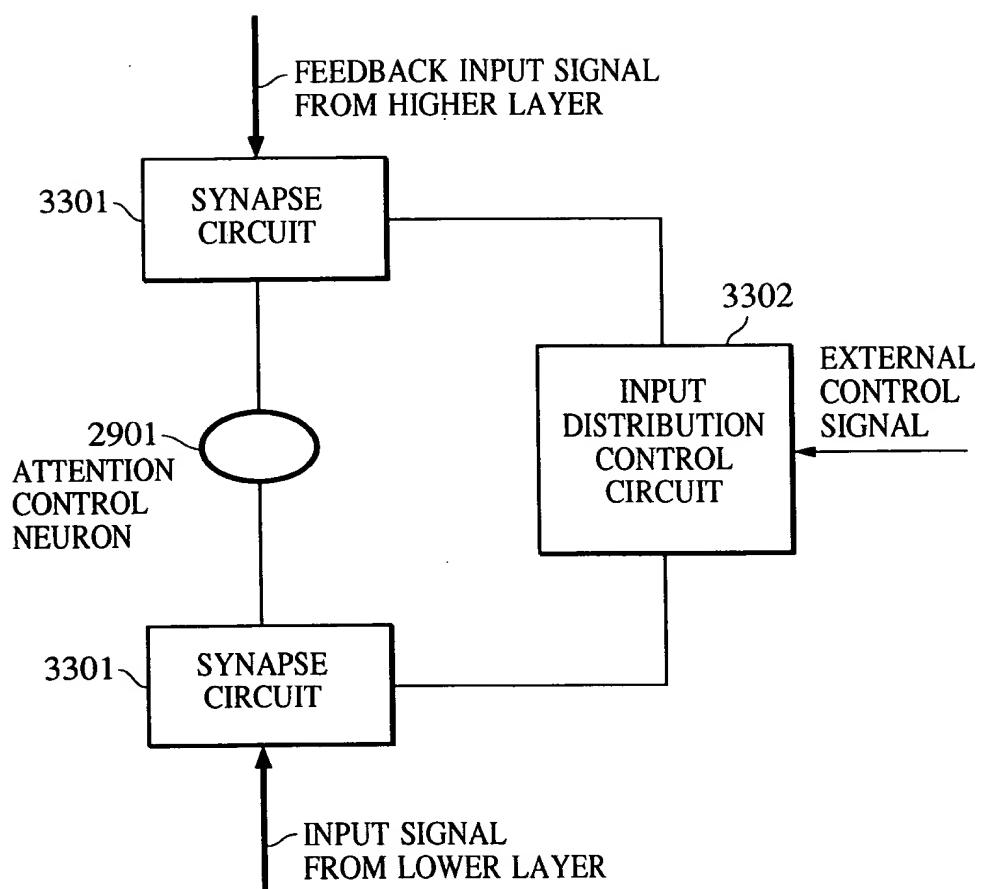


FIG. 34

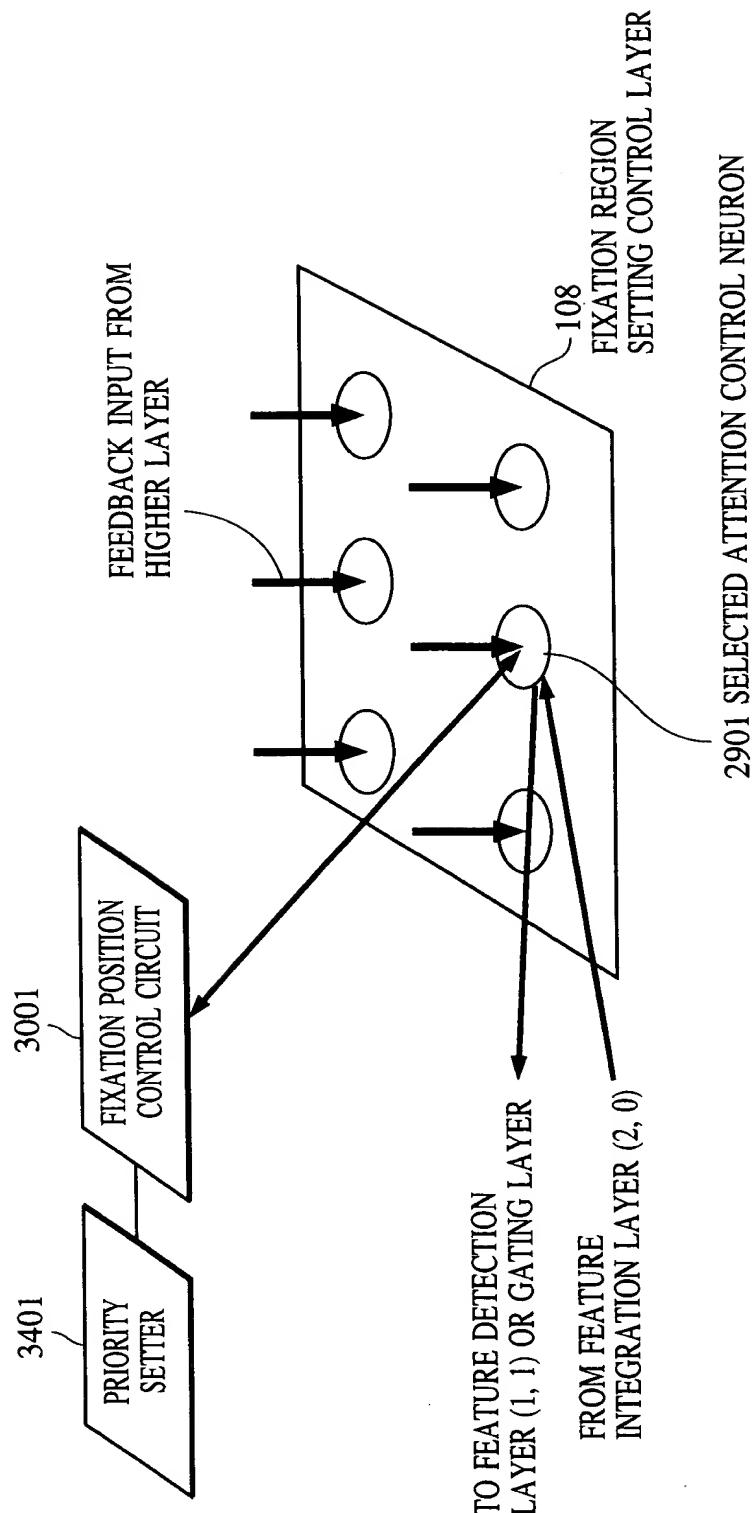
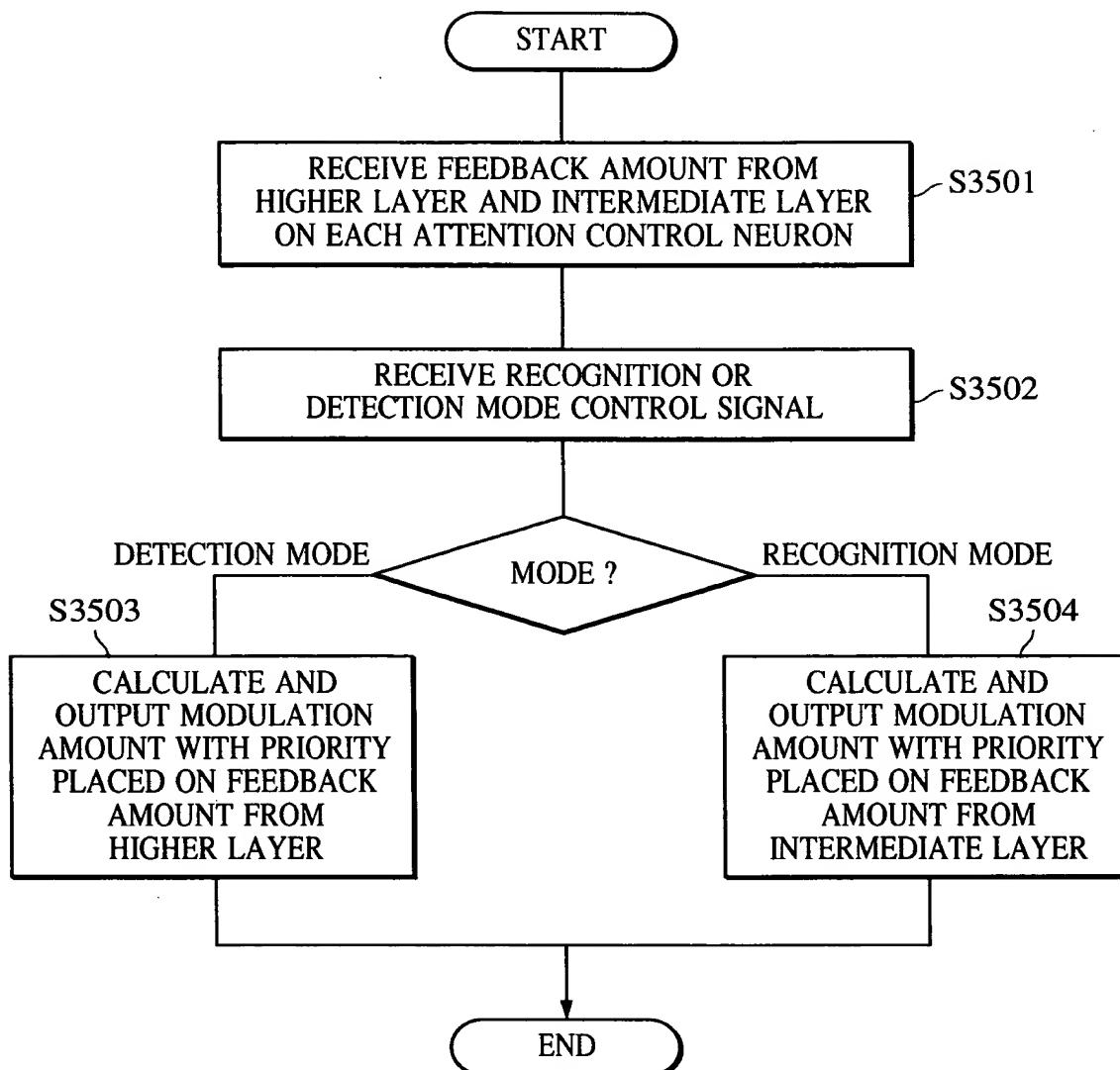


FIG. 35



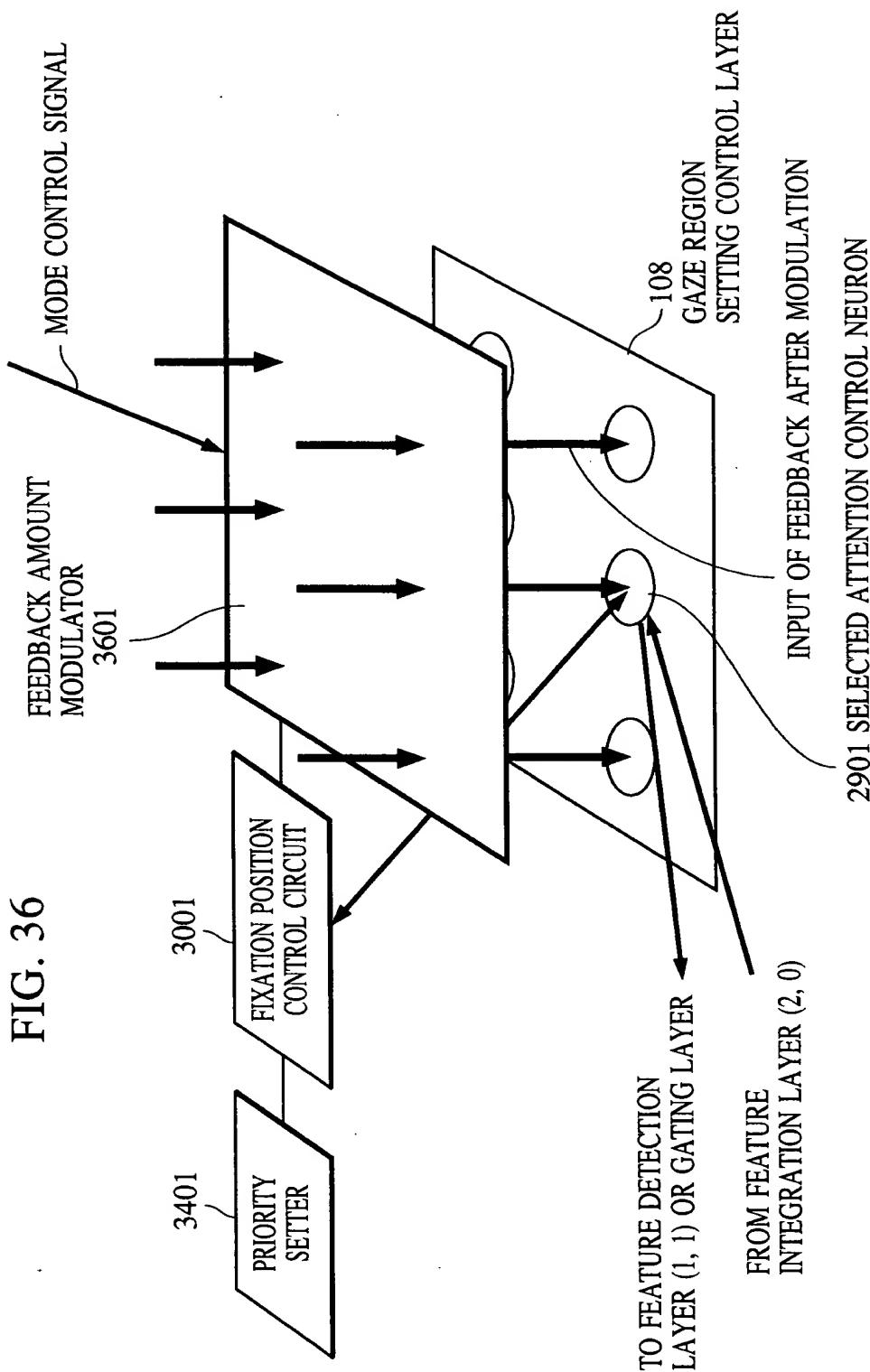


FIG. 37

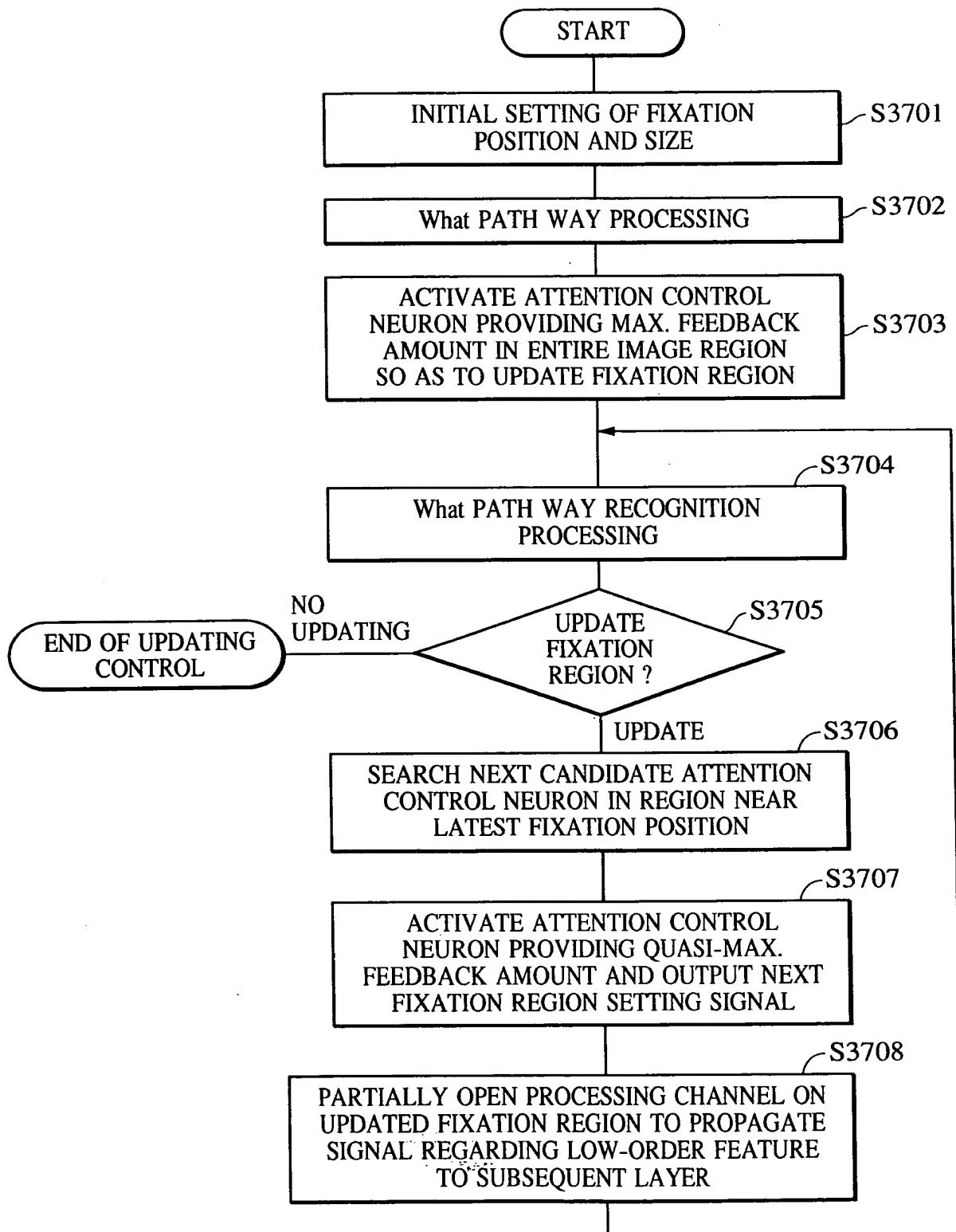


FIG. 38

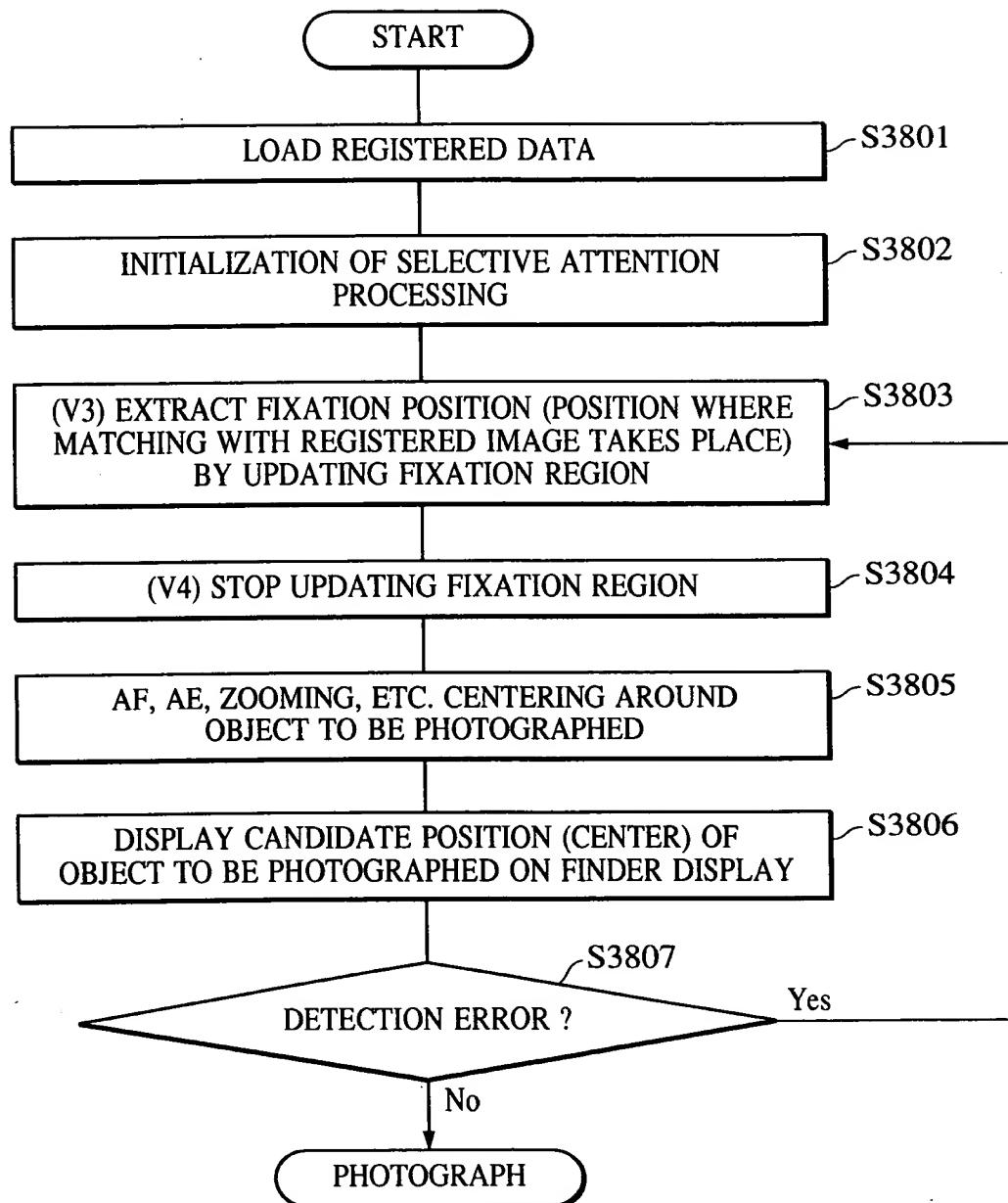


FIG. 39

